

MUSLIM ARCHITECTURE

●
FROM THE ADVENT OF ISLAM TO THE FALL
OF THE MAMLUKE EMPIRE IN EGYPT
●
●

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PREFACE

●As a student of Muslim Art and Architecture, it has always been my desire to present diverse cultural manifestations of Islam in a popular and rational form for the average reader. To do this I have had to select and co-ordinate those elements which would increase his pleasure in works of Muslim Architecture, and to stimulate him to further research in this line. This was possible only when along with the architectural and chronological sequence, the historical and pictorial sequence was introduced. Historical sequence elucidates the cause and effect of every new architectural innovation and the pictorial sequence presents in a visual form, its complete realisation. Thus I hope that this book will tend to promote the understanding

and appreciation of Muslim Architecture among the general public. That understanding and appreciation which is not the judgment of enthusiasm but of sharp scrutiny and investigation.

● From time to time, scholars in the West have not only appreciated the charm and beauty of Muslim Architecture, but have even bowed to its influence. The popular interest in this subject was slowly aroused through the writings of such eminent personalities as Professor Dozy, Don Pascual de Gayangos, Washington Irving, Stanley Lane-Poole, Fergusson and A. F. Calvert. Although Muslim Architecture continues to assume importance in the West, in the East it has attracted very little attention, with the result that except for the few, the general public is quite indifferent to this cultural heritage.

● To make this work appear less pedantic, I have eliminated the

tiresome and often disfiguring diacritical marks which are useless alike for those who know Arabic and for those who do not. I have also used both conventional and what is termed as more accurate forms of spelling various names. For example, Barkook is written by some writers as Barkuk and by others as Barquq, Abdul Malik as Abd al-Malik, Tarik as Tariq, Omar as Umar. I have also made use of the Arabic and the Persian form of spelling, such as Hajar ul-Aswad and Hajar-i-Aswad, Masjid Al-Nabvi and Masjid-i-Nabvi. The reason for this departure from uniformity in spelling is through the desire to familiarise the reader with diverse forms of spelling adopted by different writers. This I hope will help those who would like to carry on the study of this subject.

SHEIKH AHMED, LAHORE, 1941

DEDICATION

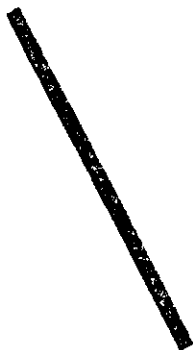
TO the revered memory of Allama Dr. Sir Mohammad Iqbal, the great poet-philosopher of the East, whose poems on Muslim Architecture first inspired me to undertake this work, I very humbly dedicate this book.



INTRODUCTION

THE study of Muslim Arts and Culture is of vital importance to artists and critics of the East and West. It occupies a place at the fulcrum between two civilisations of distinct characteristics. On one side of it is the materialistic civilisation of the West, while on the other is the spiritual East. It is difficult for the Westerner to understand the East, or to feel at home among its alien surroundings. Similarly, it is difficult for the Easterner to comprehend and appreciate the Western way of living and thinking. A Muslim,

on the other hand, strikes the medium note. Both spiritually and materially as the case may be, he can easily adapt himself, and hence can feel at home in either company. The Muslims who conquered India and China, and their brethren who subjugated a great part of the West, showed how easily they could adapt themselves to alien conditions, and in their contact with the primitive peoples of Africa, Malaya and Borneo this same faculty manifests itself.



SHEIKH AHMED

ISLAMIC ARCHITECTURE

●Architecture, like other human activities, is the product of observation and assimilation. We study the works of others to assimilate that which is akin to our own nature. Since the most fertile mind has its limitations it is essential to provide it with nourishment, to save it from becoming dull and monotonous.

●Western critics enjoy attributing the splendour of Muslim architecture to Byzantine and other Christian sources, thus dubbing the whole product as of derivative character. Certain forms of vaulting, arcades resting on columns, dosserets, wooden tie-beams across arches, mosaic, marble linings, window and door fittings, pierced marble windows and alternate stripes of red and white or yellow in facades and arches are the features which the Muslims are supposed to have derived from Byzantine sources. The prototype of the later mosques according to Dieulafoy

and some other writers holding similar opinions, is found in the Prætorium of Phæna, now known as Mismiyyah situated between Damascus and Basra built in 169 A.D. It has an aspe roofed in the form of a hemispherical scallop-shell, a feature frequently found in modified form in later Muslim work.

●Some critics with fertile imaginations attributed the origin of the horse-shoe arch to Christian Armenia. To support their theory they mention a few churches there which are now proved to be of a much later date and therefore could not possibly have had any influence on Islamic Architecture. The Mihrab or the Prayer-niche is supposed to have been derived from the vaults and domes of the Coptic Red Convent at Sohaj, but this again according to Rivoira and other authorities is much later than is usually believed. M. Saladin thinks that the Arabs borrowed ideas of massing, grouping and monumental planning from the ancient temples of Thebes and those of the Upper

Nile. But M. S. Briggs thinks that the mosques of Cairo are as different from the temples of Egypt as any two types of architecture. Yet in other writings M. Saladin attributes such features in Islamic architecture as the elliptical dome, spiral minarets used at Samara and in the Masjid of Ibn-Tulun at Cairo, buttressed towers, indented battlements, enameled tiles, metal covered roofs and many principles of the science of fortification to the Assyrians and Chaldeans through the channel of Sassanian Architecture. Rivoira ascribes all the Sassanian knowledge of vaulting to Roman sources, whereas Dieulafoy maintains that the Romans learned the art of vaulting from the Parthians in Mesopotamia. Before this controversy had time to subside another authority added more fuel to the fire. The theory of Mr. Havell says Briggs is the most startling of all. He contends "...that in destroying Buddhist temples and smashing the images of Saints, the Arabs first thought of utilising the empty niches in

the Indian temple as the Mihrab for their Mosques." Such are the opinions of those who are hailed as authorities on the subject. But these people who agree only in denying any credit to the Muslims, disagree most violently among themselves as to the common source of Muslim inspiration. Gayet finds it in Coptic Egypt, Dieulafoy in Persia and Mesopotamia, Havell in India and Rivoira in Rome, and each is convinced that the opinion held by the others is not only futile but ridiculous.

● As far as borrowing is concerned, they cleverly forget that the Christians borrowed their architectural tradition from the Greeks and Romans, who in their turn had built their architecture upon the foundations of the Egyptian and Chaldeans. If no one is original, and all have borrowed from some source or other, there is no reason why any one should be blamed. In fact borrowing and assimilating from others is one of the traits of the greatest individuals and greatest nations, and those who from

isolation or other reasons could not practise this noble art have remained undeveloped artistically, in the higher sense of the word.

We see in the case of the Indian craftsmen and master builders that, through lack of new impulses, their indigenous talent lost its primitive appeal and became stale. With the advent of Islam in India, the Pathans and Moghuls infused a new spirit into Indian life, and once again its architecture came to the fore.

● Under the guidance of Islam Saracenic architecture flourished and the saying of the Prophet Moham-mad, "Take what is good and shun what is evil" became one of the canons of Muslim architecture and learning. Under the impetus of this noble aspiration the barbarous Arabs assimilated the best of the arts and learning of their subject nations. Just to borrow the constructive elements from diverse sources and put them together is not enough, for unrelated

motives, if not handled properly, are apt to create nothing but chaos and ugliness. The manner in which the Muslims used these elements, harmonised them and gave them an originality and sense of fitness, proved beyond all doubt that they not only possessed the power of assimilation but that of organisation as well.

● Before the advent of Islam the Arabs had no architectural tradition of their own. In spite of this, when they gave up fighting and took up the task of government, they patronised all the known arts and sciences and the existing architectural traditions of the locality. This shows that there was dormant in them that spark of artistic sensibility that only needed kindling. Even more important than this was that under the influence of Islam, cruel, barbaric and headstrong people like the Arabs became extremely broadminded and awake to alien ideas and thoughts. This helped them to progress with a phenomenal rapidity unequalled in the history of mankind.

● In their various lands of adoption, they built their mosques, madressas and hospitals by experimenting with those traditions and materials which the new land provided, and in doing this they showed both adaptability and originality. With all this borrowing from the various architectural motives and craftsmen of different countries, they were able to create an unmistakable style of architecture which can easily be recognised.

● From Al-Cazar in Seville to the Taj Mahal in Agra, from the ruins of madressas in Egypt to the mosques of Samarkand, the influence of a common religion shines forth, a faith that fostered and developed the decaying artistic creations of subject races. Within fifty years after the death of Mohammad, his followers laid the foundation of a great spiritual and temporal power, that included within its bounds a large part of the civilised world.

THE HOLY KAABA AT MECCA

● In 620 A.D. the Sacred Shrine of the Kaaba was destroyed by a fire, which was caused accidentally by a woman burning incense near the curtain of its door, showing that the structure was most likely made of wood. It was the time when the Holy Prophet Moham-mad had retired to Ghar-i-Hira—a cave near Mecca—for contemplation. When the Quraish began to reconstruct the building, the citizens of Mecca vied with one another to assist in this work. It is said that the Prophet Mohammad assisted in the rebuilding of the Kaaba and he was selected by the Meccans to fix the Hajar-i-Aswad in the wall of the shrine. This new structure consisted of stone walls about six feet high. It had no roof and was protected by two coverings, one of wool and the other of silk. In 638 A.D. Khalifa Omar built an enclosure round it. Khalifa Osman and Abdulla ibn Zobair carried out alterations and extensions

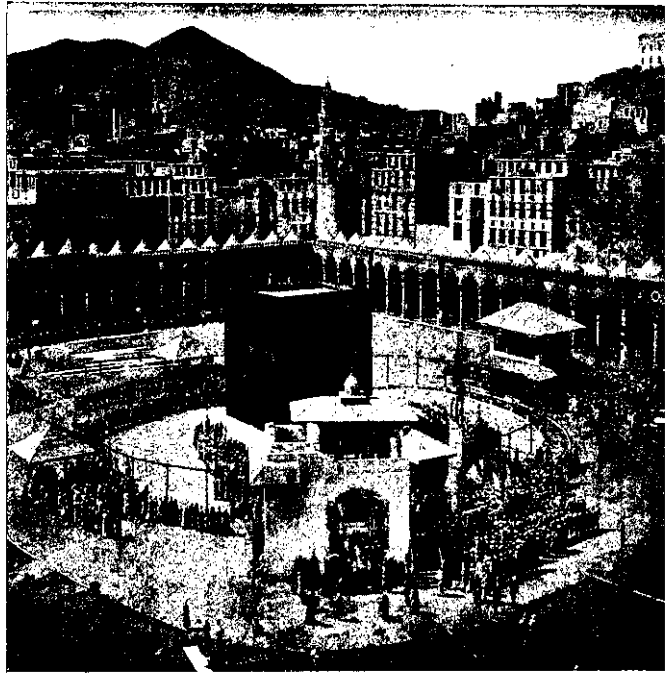


FIG. 1.

The Holy Kaaba at Mecca. The shrine which is a square structure in the centre is protected with a black velvet covering decorated with a wide band of beautiful calligraphic inscription in gold.

649 A.D. and 683 A.D. respectively. It was Walid (705-15 A.D.) who rebuilt the quadrangle with a marble colonnade. After on Mansoor (754-75 A.D.) and Mahdi (783-84 A.D.) made some other additions to it, and the Masjid Al-Haram reached the stage in which Ibn-Khaldun and Ibn Battuta found it in 1326 A.D. According to Ibn-i-Jubair, its silver gilt doors of marvellous workmanship were presented by Khalifa Muktafi (1136-60 A.D.). Hajar-us-swad, or the Black Stone, was built in the East wall of the Kaaba. The minarets were beautiful and elegant in form and were most likely raised by Khalifa Muktafi. Six of them were square from the base to half their height and were of artistically carved stone. Their upper halves were cylindrical in form and were made of bricks arranged in patterns. The seventh, was built on a disk and ornamented in stucco and had three balconies. This was destroyed by a great fire in 1399 A.D. In 1500 A.D. Sultan Al-Ashraf of Egypt rebuilt its northern and eastern sides, and Al-Ghourey, another

Sultan of Egypt, rebuilt the Bab-Ibrahim. In 1572 A.D. Selim I of Turkey rebuilt another side, and in 1576 A.D. Sultan Murad of Turkey carried out the general repair of the whole place, thus perfecting it to its present condition. The Kaaba is almost square in plan. It is 36 feet in height, and the entrance, which is situated near one corner, is six feet from the ground. This structure of austere simplicity has no decoration, except the gorgeously embroidered Mahmil in gold on black, which is renewed annually. Both the Kaaba and the Zamzam or the Holy Spring are surrounded by a railing. They stand with some other buildings in a large courtyard, which has arcades on all sides, nineteen entrances of great magnificence, and seven minarets. The pointed arches are supported on round columns of greyish marble, every fourth being a square pier. Each longer side has 36, while each shorter side has 24.

THE FIRST MOSQUE AT MEDINA. 622 A.D.

●With the Arabs the central point of their social life had always been the council-tent, commonly known as "Majlis", and according to Lammens, the word "Masjid" was derived from it. It is needless to say that the Masjid is held in greater esteem than the ordinary tent. In the earliest days of Islam, the first abode of the Holy Prophet Mohammad was used by his companions as a meeting place as well as the place for worship. Even later on the mosque at Kufa, founded by Saad Ibn Abi Waqqas, was designed for a similar purpose.

●The very first piece of Muslim Architecture was the mosque that the Prophet Muhammad built himself at Medina. It was at the spot where Al-Kaswa, the camel of the Prophet Mohammad, suddenly knelt indicating the predestined place. This happened on the first day of the week, the twelfth of

the month of Rabbi-al-Awwal (June 28th, 622 A.D.) the first year of the Hijra. It was a square enclosure surrounded by walls of brick and stone. According to Abulfeda, this simple structure had the portion of the roof under which the Prophet led the prayer made of palm sticks and mud, and it was supported on columns made from palm trunks. The Mihrab or the niche pointing to Mecca is a later addition. The pulpit from which the Holy Prophet addressed Khutba or the Friday Sermon was in the beginning a mere palm trunk. This was replaced by a pulpit or mimber of tamarisk wood with three steps, which was the invention of Benu Najjar an inhabitant of Medina. From the summit of this Mosque Bilal Habashi would call Azan with a deep sonorous voice so characteristic of his people. In 638 A.D. this mosque was considerably enlarged by Khalifa Omar. The wall enclosure which was built with sun-baked bricks, had six entrances with the inside cobbled. Its roof was made of

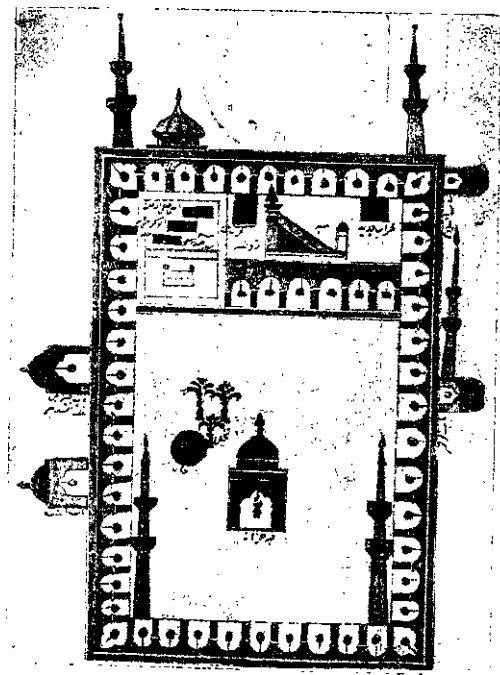


FIG. 2.

The Mosque at Medina. The above illustration is from a 15th century manuscript showing the mosque as it was after the reconstruction by Sultan Mohammed bin Qait Bey.



FIG. 3.

A bird's-eye view of the City of Medina. The large dome and the five minarets in the picture indicate the position of the Mosque of the Prophet.

interwoven palm branches coated with mud. Khalifa Osman carried out another renovation during 646-47 A.D. and added a Maqsura, or wooden screen.

● Since then Masjid Nabvi has been reconstructed, enlarged and embellished by various Khalifas and Sultans of Egypt and Turkey. Abdul Malik in 685 A.D. appointed Omar-bin Abdal-Aziz, the governor of Medina to carry out the work of reconstruction with great liberality. It was this Omar who according to Ibn Batuta invented the Mihrab. The new mosque possessed four minarets and its roof was supported by columns. Mahdi (775-85 A.D.) and Mamun (813-33 A.D.) increased its area and made a few additions. After its destruction by fire in 1256 A.D. it was again reconstructed, enlarged and embellished by the various Sultans of Egypt. In 1483 A.D. lightning caused another fire and the mosque had to be rebuilt by Mohammad-bin-Qait-Bey (1495-1498 A.D.).

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THE EFFECT OF HAJ ON MUSLIM ARCHITECTURE

● From Spain to India and from Africa to China, Islam exerted a remarkably unifying influence on the architecture of mosques, madressas, hospitals and other religious buildings. Most of the countries that the Muslims conquered, had already a civilisation and an architecture of their own. Syria, part of Armenia, and some parts of Northern Africa including Egypt, all being parts of the Eastern Roman Empire, followed the fashion of their masters in architecture. Mesopotamia, Turkestan & Afghanistan were parts of the former Sassanian Kingdom of Chosroes II, and Spain was captured from the Visigoths.

● In all these localities the principal Islamic buildings were constructed by craftsmen who were only accustomed to their traditional way of working. Under these circumstances, the

factor which brought about that uniformity in diversity so characteristic of the Islamic architecture, was undoubtedly Haj, the annual pilgrimage to Mecca. On their way to Mecca, building craftsmen and architects from various parts of the Islamic world, passed through many different lands. The local mosques besides being places of worship and the caravanserais places of rest, provided them with material for æsthetic contemplation, and contributed to the standardisation of certain features in Muslim Architecture.

EVOLUTION OF THE MOSQUE JAMI'

● Considering the austere simplicity of Islam and its followers, it is rather remarkable that there should be so rapid a transition from bare necessity to attempts at dignity and splendour in the medium of architecture. It is still more remarkable that the Masjid-i-Nabvi itself should undergo a change within twenty years after the death of

the Prophet Mohammad. The original Mosque at Medina had no architectural features of the present-day mosques. All such essential features as Sahn, an open court, Mimbar, a high pulpit, Maqsurah, a wooden screen in front of the Imam, and Minarets, Mihrab, the prayer niche indicating the Qiblah, were evolved within eighty or ninety years after the building of the first mosque. The Mimbar was evolved from the low pulpit of tamarisk wood used by the Phrophet to raise himself above the general level. As early as (856-57 A.D.) there was in the Mosque of Qayrawan a richly carved and canopied Mimbar which was brought from Baghdad by Ibn al-Aghlab. Other minor details such as Al-Iwan, the arcade or colonnade surrounding the Sahn as shelter against sun and rain, were still later additions. Thus Mosque Al-Jami' or the mosque in which congregational prayers of Friday are performed was evolved from the simple structure which the Prophet Mohammad raised at Madina.

DIFFERENT SCHOOLS OF MUSLIM ARCHITECTURE

● The entire School of Muslim Architecture can be divided into five main groups :—

1. Syro-Egyptian.
2. Mesopotamia and Persia.
3. Northern Africa & Spain
(called Maghrib).
4. Turkey.
5. India.

● Besides these main groups there are smaller centres of Muslim Arts and Culture in Sicily, Turkestan and China. In each case the group is distinguished by local characteristics. In this Introduction it is impossible to discuss even briefly the local characteristics of the above Schools. Firstly because such discussions, being more technical, have little interest for an average reader. Secondly the subtle difference between these various schools is so intricate that

the reader would need a large number of illustrations, not only of the buildings, but also of their various architectural motives, to make it intelligible.

● On the last page, I have mentioned the different schools, according to an architectural order but I feel that the early development of this art will become more explicit for a layman, if it is presented chronologically. Then later on, about the ninth century, A.D. when various schools of Muslim Architecture were developing in different lands, I have tried to present them according to their architectural sequence.

MESOPOTAMIA—THE MOSQUE AT KUFA, 639 A.D.

●During the Khilafat of Omar the Great, the Arabs conquered Syria and lower Mesopotamia, the first countries which had an ancient art, culture and civilisation of their own. On the conquest of Syria, the simple followers of Mohammad showed very little taste for original architecture. All their needs were satisfied by the deserted buildings and churches of the locality. But it was not long before the conquering warriors began to learn something about the arts and architecture and absorbed ideas from Byzantine and other sources.

●Not very long ago two Muslim monuments of this period were uncovered in Syria. One of them is the Mosque of Koser-il-Hallabat which is constructed of large stone blocks. It is a hall of three aisles separated by columns, and on the side facing towards

Mecca, it has a small niche-like Mihrab. Not far away from it is the other monument. It is a bath roofed with stone walls and is called Hammam-is-Sarakh.

●The very first mosque in Mesopotamia was built at Kufa in 639 A.D., by the order of Sa'd ibn abi Waqqa's the traditional founder of Kufa. Its roof was supported on marble columns which had been brought from a former palace of a Persian King at Hira. It was square in plan, and in place of walls, it had a deep trench around it. The architect was Ruzbih of Hamdan. Muawiya I (661—80 A.D.) rebuilt this mosque on a grander scale and this work was carried on under the direction of Ziyad, who can be termed the designer of the mosque. Ibn Jabir who saw this edifice in 1184 A.D. describes it to be a structure of huge dimensions. Its Iwan had five aisles, while the remaining sides had two each. The stone columns fixed on molten lead stood 30 cubets high.

PALESTINE— HARAM ASH-SHARIF

● When the Muslims captured Palestine, Khalifa Omar the Great journeyed beyond the limit of Arabia to visit the Holy City. Dismounting his sorrel camel dressed in the plainest of clothes, entered the Holy City of Jerusalem on foot, its conqueror Omar the Great. To both the Christians and the Jews he gave permission to retain all their churches and Holy Shrines, the right, which for centuries to come was not infringed. This so pleased the inhabitants and patriarchs of Jerusalem, that they presented a place to Khalifa Omar, where he might establish a place of worship. This spot was on the site of the old Temple of the Jews, which is also held sacred by the Muslims. It was here that the Burraq alighted during the Night of Mi'raj, so that the Prophet might offer a prayer before ascending to Heaven. From time immemorial this spot has been considered a place of

sanctity and reverence, for here had stood in various ages the Temples of Solomon, of Herod and of Hadrian. Standing at the most prominent part of the city with a background of distant mountains, it presents a most beautiful sight. Those who have seen Haram Ash-Sharif, will agree that Khalifa Omar the Great showed tremendous æsthetic appreciation in selecting this site for the first Mosque in the Holy City of Jerusalem. Within the bounds of Haram Ash-Sharif stands the Dome of the Rock, the Mosque Al-Aqsa, The Dome of the Chain, and a number of other structures. The great battlement walls of the city forming its Eastern and Southern limits have eight gates, while the remaining two walls have only three.

QUBBAT-AS-SAKRAH OR THE DOME OF THE ROCK

● The Dome of the Rock, now commonly known as the Mosque of Omar, stands on the Sacred Rock which

is associated with the scene of Abraham's intended sacrifice of his son, and the early Qibla of the Israelites. It was this Rock which Abd-al-Malik tried to make the rival of Hajar-ul-Aswad or the Black Stone of the Kaaba. The Mosque which Omar raised on this spot in 633 A.D. must have been a huge structure, for according to Arculph it was capable of holding as many as three thousand men. It had no Mihrab, so the Qibla was represented by a stone. This original structure has long ceased to exist, but its name has been transferred to the great Dome of the Rock. In spite of wear and tear of centuries, destruction through fire and earthquakes and constant repairs, this monument of the last quarter of the seventh century still preserves the plan and a great deal of actual structure and decorations of the edifice raised by Abd-al-Malik ibn Marwan. The technical work of building was carried out by Yazid ibn Salam an inhabitant of Jerusalem and that of finance was given to an Arab, Rija ibn Hayah.

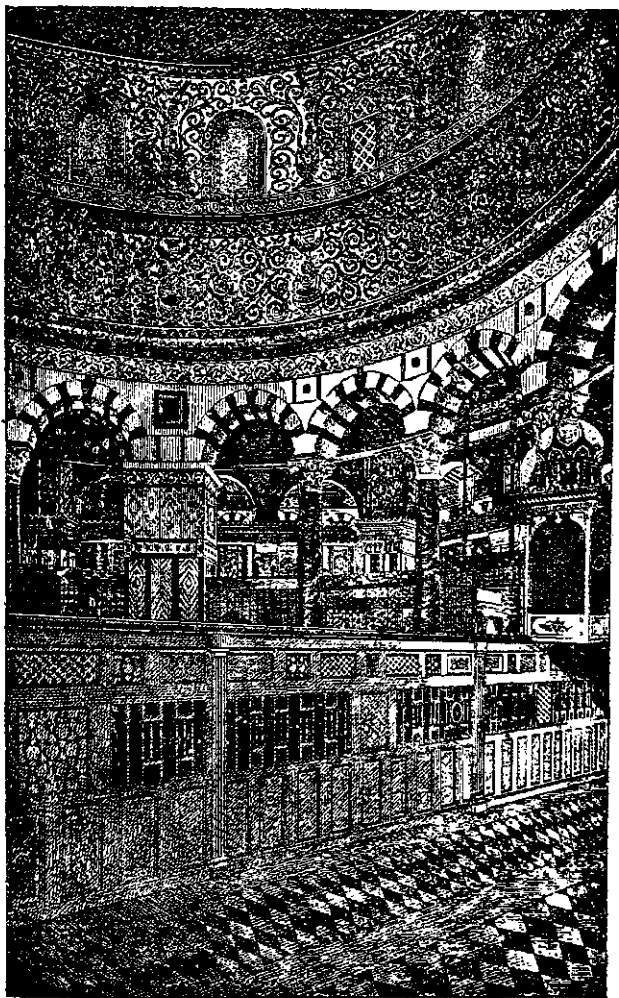


FIG. 4. Interior of the Dome of the Rock.

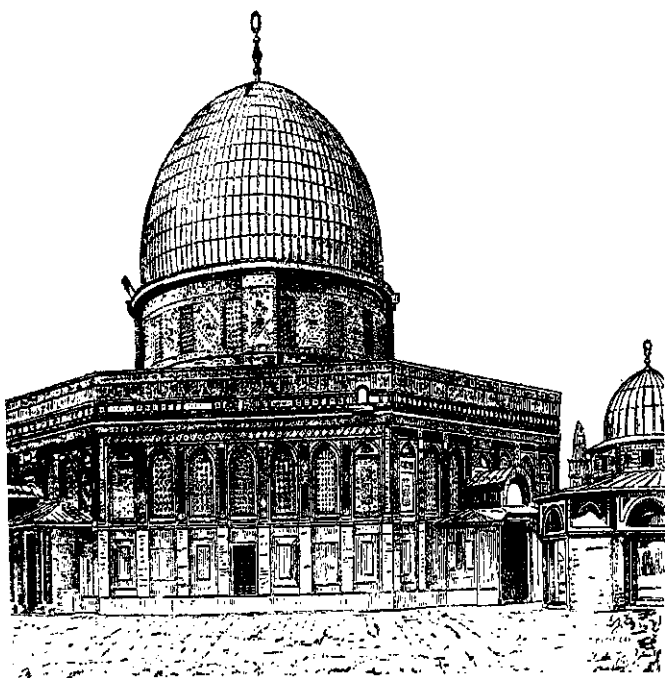


FIG. 5.

The Exterior of the Dome of the Rock. On the right the small structure is the Dome of the Chain, which is believed to have served as a treasury for Khalifa Abd al-Malik.

● It stands on a large terrace some ten feet above the general level of the enclosure and is reached by wide flights of steps each surmounted by a graceful arcade. Judging from this creation, Abd-al-Malik must have been a man with artistic sensibility and a taste for town-planning. This structure is octagonal in plan with each side about 68 feet long, made of seven lofty blank arches. Five of these have large pierced round-headed windows at the upper parts. It also has four porched entrances made of marble placed at the cardinal points. The drum of the dome and the exterior of the building from the top to the bottom of the windows is decorated with beautiful Persian tiles representative of the sixteenth century glaze work. The other ornamental details are due to the efforts of the Khalifa Al-Mamun in 831 A.D. The walls of the octagon from the ground to the sills of the windows are covered with slabs of marble. The parapet of the octagon like the top of the drum is provided with

borders of text from the Quran within conventional floral scrolls. Khalifa Mamun who made some restoration in this edifice, substituted his own name in the inscription in Kufic running round the cornice of the colonnade which supports the dome. In spite of this the Arab writers unanimously ascribe this edifice to its true builder Abd al-Malik. In front of the northern façade, Abdulla ibn Tahir the Governor of Khurasan, built a beautiful porch with marble columns. Muqaddasi who visited the Mosque in 985 A.D. mentions that it had twenty-six entrances, fifteen on the north side and eleven on the east.

●The windows in the drum are of pierced plaster slabs filled with coloured glass, but the original windows were of pierced marble. The drum which belongs to the Turkish period has thirty-two ribs, is built in three sections and is covered with lead externally. The builder resorted to the double wooden dome for two reasons. Firstly because it

withstands the shocks of earthquakes better than a solid dome, and secondly, rapid variation in temperature will not crack the inside plaster decoration. According to an old chronicler the original dome from outside was covered so heavily with gold that it was impossible to keep the eye fixed upon it. The dome is slightly curved at the base, and nowadays its outside is covered with lead and the inside with stucco decoration, gilded and painted. The internal decoration of the dome lit by coloured lights from the windows of the drum, is an enchanting sight, and stands in contrast to the solid repose so characteristic of the structure from outside.

●The Mosque suffered again from earthquakes in 1016 A.D. and 1034 A.D. when Abdulla ibn Tahir's porch fell damaging the walls of the Haram and the Dome. Zahir the Khalifa of Egypt had it restored in 1035 A.D. by Abdulla, an architect from Cairo, who reduced the number of doors to five, making the structure

more stable. The dome is placed on a structure which is circular in plan. The drum of the rotunda is carried on four piers and twelve columns which are placed in sets of three columns between every two piers. The piers which are covered with marble slabs are introduced to impart stability to the structure. The marble columns were taken from the ruins of ancient buildings and accounts for the lack of uniformity and perfect fit among the columns and between the shafts and capitals. Another method employed to increase the stability of the columns was by the introduction of flat lintels covered with embossed and painted stucco decoration or marble facing, and with plain wooden ties. The capitals on these columns are of two kinds, Corinthian which are slightly bell shaped and the others a cross between Roman and Byzantine. The arches upon them are round. Since the width needed for the amulatories was too large for a single span, a supporting octagonal arcade was introduced

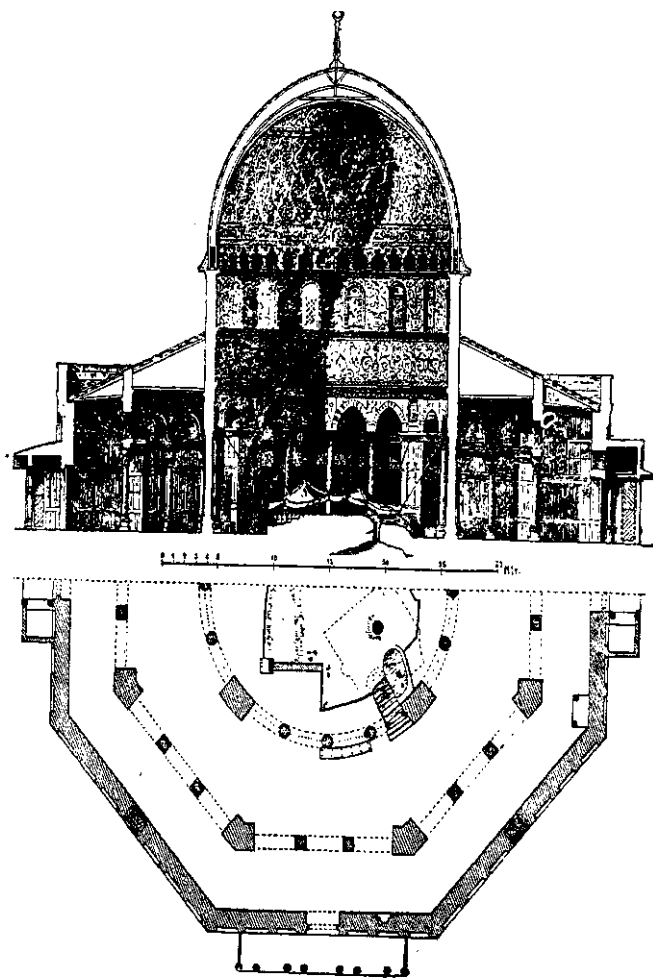


FIG. 6.

The Section and Plan of the Dome of the Rock at Jerusalem.



FIG. 7.

The Interior of the Dome of the Rock showing the decorated ceiling, columns and piers.

between the rotunda and the outer walls which are of solid masonry about four feet in thickness.

● In 1099 A.D. when Jerusalem was captured by the Crusaders, this Mosque was turned into a Church and its interior was decorated with paintings. The Rock was covered by a marble pavement and enclosed with an iron railing. Saladin rededicated it to Islam and brought about the restoration and renewal of the internal decoration of the dome. Ibn Batuta, on visiting it in 1326 A.D. still found some traces of the Christian pictures both inside and outside the Mosque. A fire in 1448 A.D. destroyed the dome which was replaced by Suleiman I, the Magnificent, 1520-66 A.D. who also carried out its restoration and embellished it with glazed tiles less highly coloured than those with which it is now faced. The use of glazed tiles originated in Persia or Mesopotamia. In 1776 A.D. and during the reign of Sultan Mahmud II (1808-39 A.D.) further repairs are attested.

This exquisite structure which stands outside the stream of Arab art, according to Furgusson, is "perfect.....solemn and solid, and one of the most impressive buildings in the world both externally and internally." To assume that the Dome of the Rock is simply a Roman or Byzantine type of structure copied directly from the Pagan or Christian prototype and executed by Christian craftsmen throughout, is rather a rash assumption in the opinion of M. S. Briggs.

● Now let us consider those influences which impelled the Arabs to use this type of structure for the first time. When the Arabs came among such people who expressed their religious devotion by raising magnificent temples and churches, it inspired these simple nomads of the desert with a zeal to glorify the Sacred Rock of Jerusalem with a building that should surpass in beauty and grandeur all those of their subject races. It was the first time that the Arabs used a dome as an important architectural

element. Considering that they were to shelter a rock, no one can deny that under the circumstances the use of the dome as a culminating feature, shows their sound judgment and sympathetic appreciation. This annular rotunda, or dome within an octagon, has also been used by Roman and Byzantine architects. In the opinion of J. Strzygowski, such domes originated in Asia Minor and from there passed through Armenia to the Byzantians and thence to the Balkans and Russia. This shows that the Arabs, instead of copying them, followed their original source of inspiration.

DOMES OF THE CHAIN

●Very near the Dome of the Rock stands a small structure called "Qubbat ul-Silsila" or the Dome of the Chain. This structure, a kiosk made of an internal hexagonal drum supported on six columns, is crowned by a cupola. The outer hendecagonal arcade has eleven columns, two being included in the mihrab.

The arches are semi-circular with wooden ties and the columns and capitals are of varying types and dates. This edifice is so very similar to the Dome of the Rock that older chroniclers believed it to be the model for the Qubbat As-Sakrah. Some believe that it also served as a treasury for Abd al-Malik, but the modern writers like E.M. de Vogue and Rivoira consider it either contemporary or even of a later date than the Great Dome of the Rock.

MASJID AL-AQSA

● The word Al-Aqsa means the 'remote'. According to early Arabian legends, the entire area of the Haram Ash-Sharif was called Al-Aqsa "the remote place of adoration". Khalifa Omar the Great on entering Jerusalem made his devotions at the spot where to-day stands the Mosque Al-Aqsa. Originally on this very place, or near about it, stood one of the Justinian Churches dedicated to St. Mary the Virgin. It is still a problem in the history of



FIG. 8.

The Liwan of the Mosque Al-Aqsa. The small niche in the distance is the main mihrab which is shown more clearly in Figure 9.



FIG. 9.
The Main Mihrab of the Mosque Al-Aqsa at Jerusalem.

architecture whether any part of this church was included as a part of the mosque which Abd al-Malik raised in 691 A.D. According to Le Strange this structure was built from dressed and carefully adjusted blocks of stones. It was made like a court surrounded by porticos of varying depths. Soon after its completion in 692 A.D. the structure suffered from earthquakes. Mansur undertook the work of restoration but it was again destroyed by an earthquake. This time it was rebuilt by Mahdi about 780 A.D. The cause of these constant destructions was found to be the extreme width of the aisles which Mahdi reduced. He then added four more aisles.

● Between 828 A.D. and 844 A.D. Abdalla ibn Tahir, the independent Governor of Khurasan, built a porch with marble columns in front of the northern facade. This, as I have already mentioned, fell during the earthquakes of 1016 A.D. and 1034 A.D., and was never built again. Before these two

earthquakes the mosque had twenty-six gates which afterwards were reduced to fifteen, ten doors on the east and five on the north. This reduction to strengthen the walls was carried out by Abdalla, an architect from Cairo. The liwan of the mosque had two hundred and eighty columns which supported pointed arches of stones.

● Some of the Corinthian capitals used in the mosque belong to the time of Justinian, and the others—their copies—are of the time of Khalifa Mahdi. The copies resemble the originals so closely that E. M. de Vogue, failing to realise their imitative nature, made a mistake concerning the date of Al-Aqsa. These capitals are of three types, the melon shaped, the basket form and thirdly those with stiff and twisted leaves with their points turned down. The mihrab that was decorated with enamelled work was flanked with four columns of cornelian colour. In 1099 A.D. when the Holy City was taken by the Crusaders, the Knight

Templars turned the mosque into a living place, built a church and converted part of the structure into stables. On its recapture by Salah-ud-Din Ayyubi (Saladin) the Masjid Al-Aqsa was repaired and embellished to be used again as a place of worship. The marble decorations, the two windows in the south wall of the mosque and the rebuilding of the same wall was the work of Nasir Mohammad, the Mamluke Sultan of Egypt 1495-1498 A.D.

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EGYPT—THE MOSQUE AT FUSTAT, 642 A.D.

●The conquest of Mesopotamia was followed by the Arab invasion of Egypt in 640 A.D. under 'Amr ibnu'l-'As, one of the generals of Khalifa Omar. He started from al-Arish the border town of Egypt and Palestine. After a delay of few months caused by the resistance of the imperial garrison at the fort of Pelusium and then at Bilbays, he reached the site of modern Cairo which he occupied in the spring of 641 A.D. Two months later a treaty was signed by which he became the master of Alexandria, at that time one of the wealthiest cities of the world.

●In 642 A.D. he founded Fustat (Fossatum—the town of the tents) the suburb of Cairo, and built a small mosque there. According to Edrici (translated by Jauvert, Vol. I, P. 303) it was actually a Christian church which the Muslims converted into a mosque. It

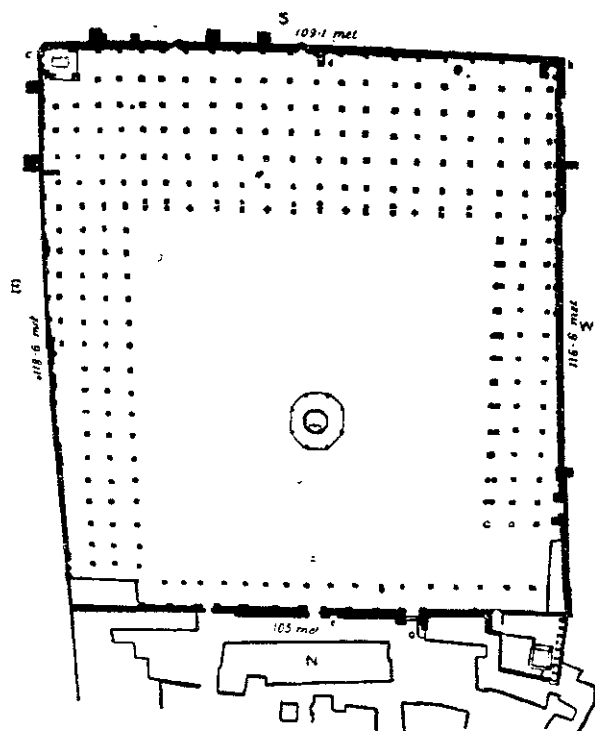


FIG. 10.

The Plan of the Mosque at Fustat which originally was built by 'Amr ibnu'l-'As, one of the Generals of Khalifa Omar.

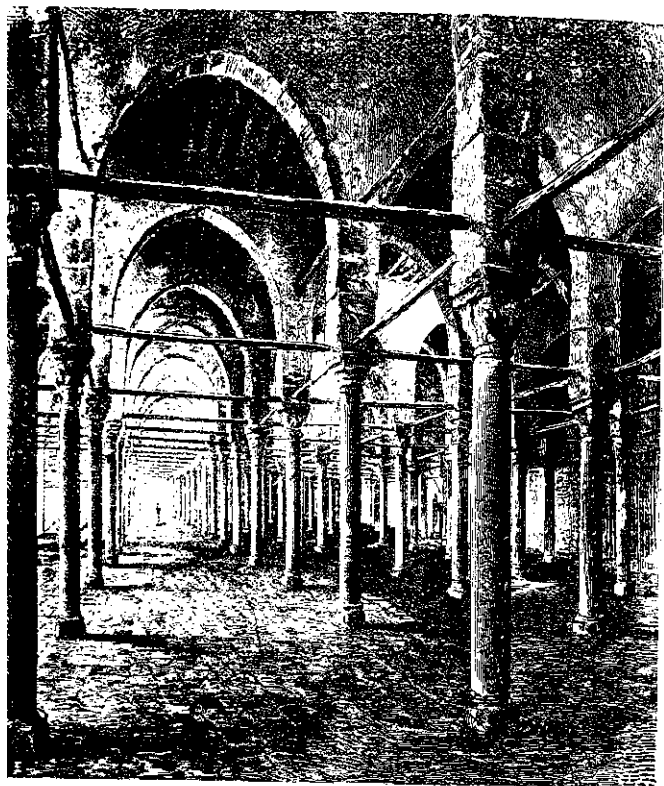


FIG. 11.
The Main Liwan of the Mosque at Fustat as it is to-day.

was rectangular in plan about 92 ft. by 56 ft. and had six entrances. Its low and crudely built roof was supported on a few columns taken from older buildings. The inside walls were made of unbaked bricks with the floor made of pebbles set in concrete. The light most likely came from the opening in the roof. Originally this structure had neither court, mihrab nor minaret, but it had a new feature which was the mimbar, a high pulpit. In 673 A.D., during the Khilafat of Muawiya, Maslama ibn Mukhallad, the Governor of Egypt, enlarged this mosque, made a court, plastered its walls and also added four towers. Similar minarets were later added to the Mosque at Medina by Walid. In 696 A.D. Abd al-Aziz, then Governor of Egypt, made a few more additions to it.

● No vestige of this old mosque remains to-day, for by the order of Khalifa Walid I (705-715 A.D.) this structure was pulled down and entirely reconstructed with a mihrab and eleven

entrances. From 750-884 A.D., quite a number of alterations were executed by various people including those in 826 A.D. by Abdalla ibn Tahir. The earthquake of 885 A.D. and the fire in 886 A.D. destroyed all these alterations and additions. In 1169 A.D. during the reign of 'Adid, the last Fatamid Khalifa, the city of Fustat was fired to save it from Almeric the Crusader, but Salah-ud-Din Ayyubi, on becoming the ruler of Egypt, carried out its repair and restoration. In 1303 A.D. an earthquake did tremendous harm to the mosque, which was remedied by various people and Sultans of Egypt including Nasir Mohammed and Qait Bey (1495-1498 A.D.). In 1798 A.D. the whole mosque was renovated assuming the shape in which we find it to-day. It is for this reason that Creswell considers it misleading to present the present plan of this mosque as an example of the earliest Islamic period, and hence he looks upon Ibn Tulun as the real founder of Arab architecture.

NORTHERN AFRICA SIDI-'UQBA AT QAIRWAN. (670 A.D.)

● In 661 A.D. 'Amr, then the Governor of Egypt, sent 'Uqba on an expedition against the Berbers. In 670 A.D. the reinforcement sent by Muawiya helped him to found the town of Qairwan which lies to the south of Tunis.

● The conquest of Northern Africa, from Qairwan to Carthage, was completed during the reign of Abd al-Malik. From Tripoli to the Straits of Gibraltar, the whole land was laid waste, not by the conquering Arabs, but by the vanquished Berbers. Qairwan became the capital of the African Muslim Empire and remained so for a considerable time. Here a number of mosques were built by the Arabs, out of which the Sidi 'Uqba at Qairwan started by 'Uqba-bin-Nafi the Governor of Africa in 670 A.D. is the most important. This structure, most likely made of clay, was finished in 674 A.D.

In it the qibla was indicated by a rough stone.

●Between 696-787 A.D. the mosque was pulled down and rebuilt thrice, first by Hassan the conqueror of Carthage, the second time by the order of Khalifa Hisham (724-43 A.D.), and the third time by Yazid (772-87 A.D.) the Governor of Africa. By the order of Khalifa Hisham, Bishr the Governor of Qairwan, along with the rebuilding, enlarged the mosque and added a minaret to it. When Yazid rebuilt the mosque he left this minaret intact and the lower part of it is still standing. Ziyadat Allah the Aghlabid Amir of Africa (816-37A.D.) razed it to the ground to rebuild it again. After this the mosque was left in peace except for a few alterations and additions. It is for this reason that some writers call it the Mosque of Ziyadat Allah. It is about 560 feet long and 330 feet broad with the enclosing walls heavily buttressed like the mosques of Mesopotamia. The liwan has sixteen aisles bisected by a

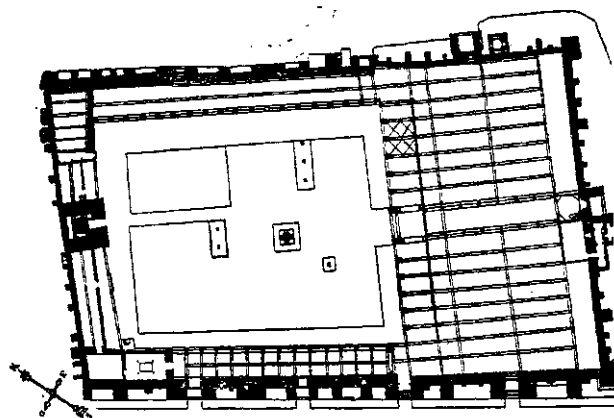
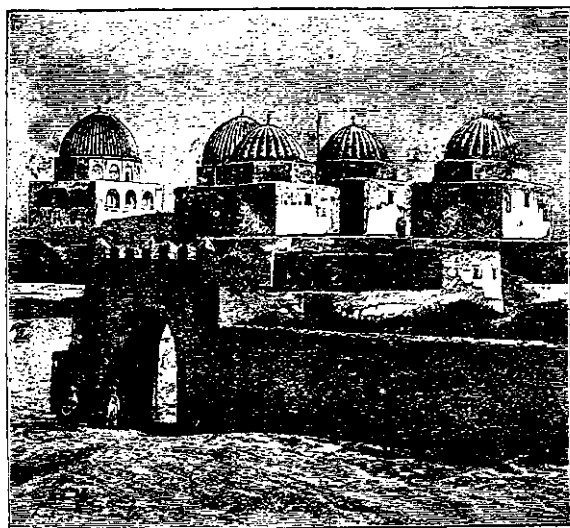


FIG. 12.
Exterior and the Plan of the Mosque of Sidi-'Uqba at
Qairwan.

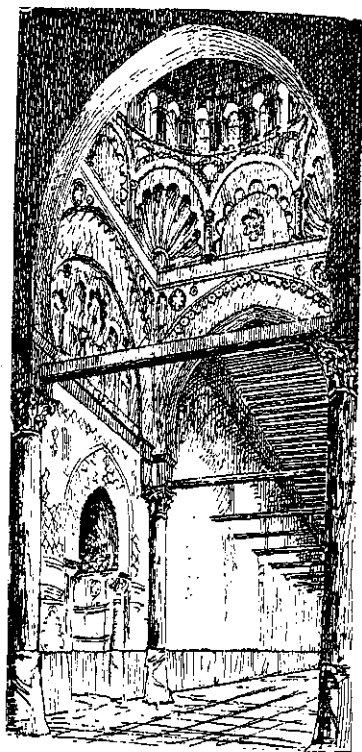
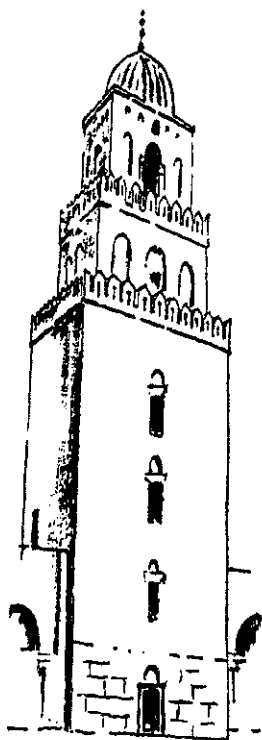


FIG. 13.

On the left is the Minaret of the Mosque at Qairwan.

FIG. 14.

On the right is a part of the Main Liwan showing the Mihrab.

wide central aisle or a nave leading to the mihrab.

● Ibrahim II set the existing facade against the old one, built two liwans or colonnades on the east and west of the court and reduced the width of the central aisle by the addition of an extra row of columns each side. This provided a strong substructure for the two domes which were also added by him. One of them is just before and just above the mihrab while the other is above the centre of the liwan called Qub Bab al-Behu, the dome of the gate of the facade. The transition from the square substructure to the circle of the dome is effected by the introduction of semi-conical-shaped pendentives built at the corners of the square. They are decorated with shell patterns in plaster work. The spandrills of the arches carrying the dome and the wall over the mihrab are decorated with small niches which have cinquefoil arched heads and little rosettes. In the Qub Bab al-Behu the transition from the square

structure to the octagon with windows on which the dome rests, is accomplished by small horse-shoe arches at each corner. This dome is made of concave sections. Its ribs are supported by brackets. When it was built, the mihrab was decorated with tiles of metallic lustre which were brought from Baghdad. Originally the mosque had ten entrances out of which two are now walled up. The gate called "Bab Lella Regiana" built in 1284 A.D. has a cupola which is very similar to the dome that crowns the square minarets. This minaret is the oldest in existence and its rather plain and simple appearance indicates that in the beginning minarets were just plain square towers which later on developed into divers beautiful forms. The minarets that belong to the great Mosque at Damascus and those of the Mosque at Medina, also built by Walid, present the earliest forms of such minars or towers.

● Except a few columns, the bases and capitals which are of exquisite

beauty and variety, were taken from both Christian and pagan temples. Above the capitals from column to column rest wooden ties or dosserets as a precaution against earthquakes and against parting asunder. Since the columns were rather short, height was gained by raising stilted arches on high imposts, a style which was destined to become one of the main characteristics of this architecture. In the central nave and all around the court the columns are used in pairs. This Mosque of Qairwan is one of the earliest and the most interesting examples of Muslim Architecture. In it are found many of the elements which went to form the Islamic style in architecture, such as columns, prayer-niches, square towers, pendentives, arched niches, plaster decoration capitals, bases and horse-shoe arches.

DAMASCUS THE MOSQUE JAMI', 705 A.D.

● The murder of Osman, the third Khalifa, marked the beginning of schism in Islam. Osman's successor, Ali, also met a violent death by the dagger of a Kharjite assassin. After his death the Muslims accepted Amir Muawiya as their Khalifa. He ruled with success, but he was succeeded by his headstrong and dissolute son Yezid, who is looked upon by the Muslims as being the perpetrator of the most painful event in the history of Islam, the tragedy of Karbala which culminated in the assassination of the Holy Prophet's grandson Hussain. Yezid died shortly after. His son Muawiya II was either too weak or too scrupulous to guide the destinies of the Muslim Empire at the critical juncture, so he abdicated, asking his people to choose a worthy Khalifa for themselves. They chose Marwan son of Hakim who had made his name as the secretary of Khalifa Osman; but he died within a

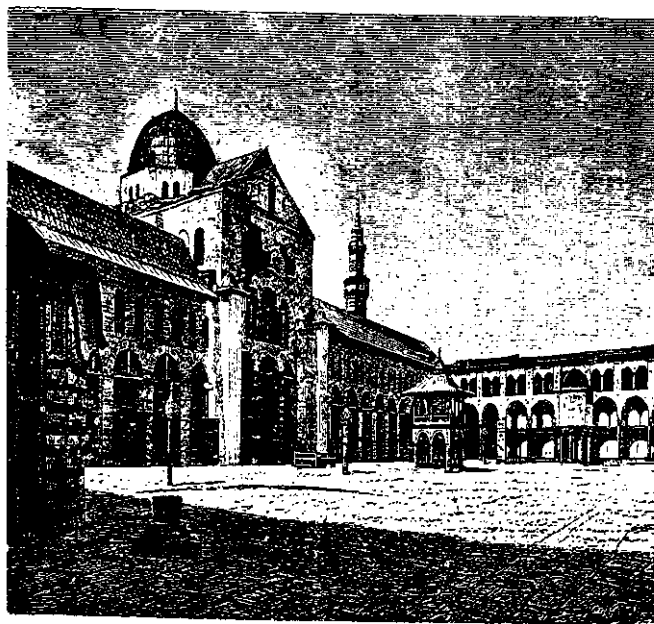


FIG. 15.

The Sahn and the Façade of the Mosque Jami' at Damascus.
In the distance the small domed structure resting on columns
was once used as a public treasury.

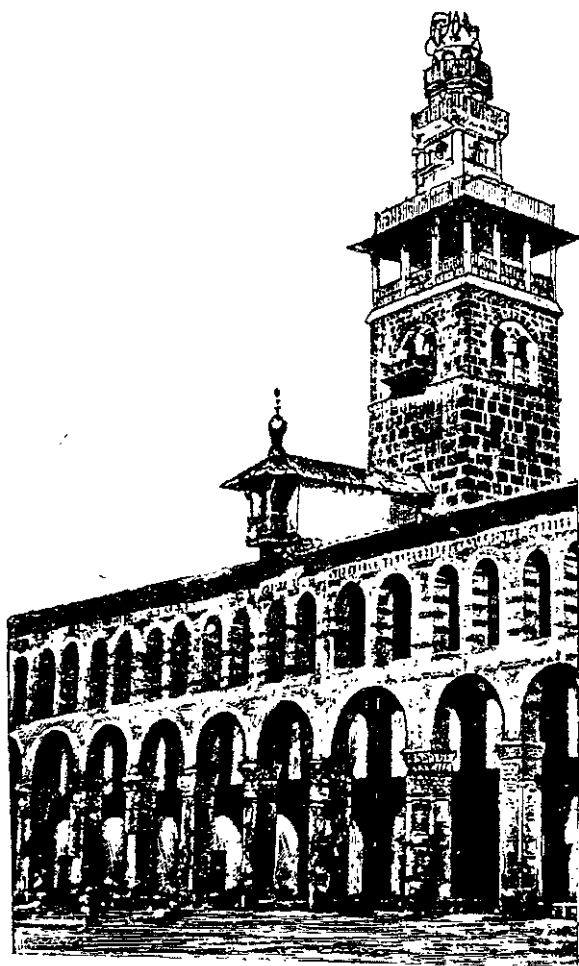


FIG. 16.
The Arus Minaret of the great Mosque at Damascus and a
part of one of the Liwanat.

year. In his place Abd al-Malik son of Marwan I was made Khalifa. Besides being a man of unique military ability, Abd al-Malik was also a patron of learning, art and architecture. He and his son Walid are considered to be two of the greatest architects of their time. The great Mosque at Damascus which he began in 705 A.D. was finished by his son Walid.

●According to the local tradition, this Masjid Jami' was built on the spot where originally stood a pagan temple of the Sun, or of Jupiter, which dates back to the pre-Roman epoch (112-95 B.C.). The Christians transformed and used the temple as a church. In 636 A.D. when the Muslims captured Damascus, they used only half of this church for prayer, until Walid I (705-715 A.D.) acquired possession of the whole building and turned it into a mosque. In plan it is rectangular, about 530 ft. by 320 ft. surrounded by four walls with square minarets at each angle. Length-wise, little

less than half is occupied by the liwan, and the other three sides have sheltered arcades.

●The arches surrounding the central court are supported partly on columns and partly on piers, and above each arch there are two semi-circular headed windows. The interior of the building was originally richly decorated with marble mosaics and windows of coloured glass. The columns stand on square pedestals and their Corinthian capitals are of different dates and variations. They carry pulvins forming imposts for the arches which are slightly horse-shoe in shape. On top of these arches stand another tier of smaller arches that spring from squat columns. They support the roof and add to the height of the liwan. Besides the horse-shoe arch, the two-storied arcades and the dome rising in the centre of the liwan, many other architectural innovations were employed in this mosque. It was the very first time in the history of architecture that the horse-shoe arch was



FIG. 17.

The Interior of the Main Liwan of the great Mosque at Damascus showing the use of smaller arches above the larger ones to give height.



FIG. 18.
The Façade of Lomas the Rishi Cave.

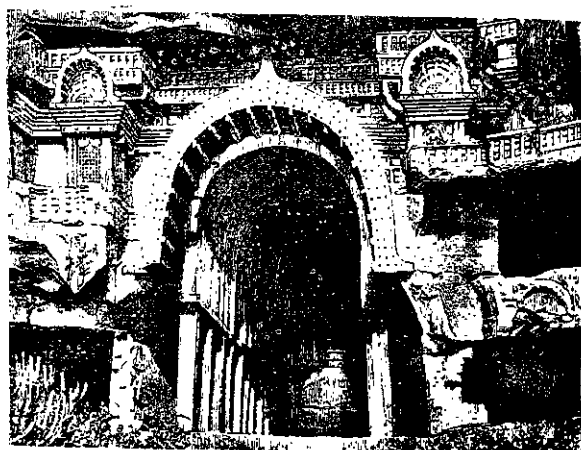


FIG. 19.
The Façade of the Cave at Bhaga Karli.

used as a constructive element. Previously this had been merely carved out of stone or a block of granite. Two examples given by Havell of the Indian temples of Ganesha and Bhima Rathas at Mamallapuram near Madras are of this type. The temples of Lomas Rishi near Gaya in Behar and those of Bhaga, Karli and Nasik in the Bombay Presidency, ascribed to the first or second century B.C. are also carved out of rock. Another new feature of this mosque is the minaret that provides a place for Azan or the Call to Prayer. Its principal liwan has three aisles crossed by a central transept and has a dome over the middle. The transept contains four large piers supporting great arches carrying the central dome, which is about forty-three feet in diameter. The square drum of the dome is made into an octagon by means of four niches at the angles which are partly recessed into the wall. Rivoira thinks that the Muslims copied this motive from Persia as there is an example of it found

in the palace of Chosroes II (591-628 A.D.) at Qasr-es-Shirin. He believes that this form reached Persia from Ravenna or South Italy. In my opinion these niches or pendentives were evolved from a squinch or raccord, a motive that was well known throughout the Muslim world at the time of Walid. The top of the drum and the dome is lighted by windows, below which runs a narrow gallery. This dome, according to Muqaddasi, was modelled after the Dome of the Rock.

●Owing to lack of experience on the part of the builder, the dome of Walid fell and had to be rebuilt. This was not the only calamity, for a fire in 1069 A.D. again destroyed this dome and Khalifa Muqtadi (1075-94 A.D.) had it built under the direction of Malik Shah. The Kufic inscriptions on the piers, tell us that this work was carried out in 1082 A.D. According to Ibn Jubair, a Spanish Muslim, this double dome, like the Dome of the Rock, was made of wood.

The outer cupola and the rest of the roof was covered with sheets of lead and the inside was richly ornamented with rosettes carved in wood and beautiful coloured decorations. During 1400 A.D. the havoc wrought by the order of Tamarlane destroyed everything in the mosque that was not made of stone. This time the work of restoration was carried out by Malik Muiyyad (1412-1421 A.D.), Sultan of Egypt, who built the cupola out of masonry. This cupola has been rebuilt since the fire of 1893 A.D.

● The central aisle of the mosque with its imposing entrance and especially the main mihrab was lavishly decorated, gilded and inlaid with agate and turquoise. The maqsura according to Ibn Khaldun, is the work of Muawiya. This isolated enclosure containing the mihrab was reserved for the Amir at the time of public prayer. The introduction of the maqsura, according to some writers, was the result of the assassination

of Khalifa Ali (656-661 A.D.) and the murderous attack on Muawiya in 661 A.D. by the Kharijites; but Father Lammens has a different view on the subject. He thinks that the muqsura was a kind of private closet for the sovereign in the mosque, which during the time of the Abbasides was used by the Imam for delivering Khutba and other sermons. Anyway it is certain that the muqsura originated at Damascus and was built by the order of Muawiya. Besides the main mihrab, this mosque had two more, the mihrab of the Hanafis being built in 1082 A.D. for the sake of symmetry. There are many interesting speculations concerning the origin of the mihrab. Havell observes that it was derived from the niches of the Buddhist temples, while Rivoira vehemently disagrees with him for he is convinced that it was derived from an apse of a church. But I feel that it was the form of hands at the time of Dua (prayer) that first gave the idea of the mihrab.

● In the marbled court of the mosque there are three domed structures. One, octagonal in form, standing on eight lofty columns surmounted by Graeco-Roman capitals and decorated with polychrome mosaics, was most likely used as the public treasury. As late as the tenth century in Syria the principal cities of each province had their treasuries in the Mosque Jami' of the town, "both without and within, the mosque was beautifully decorated with parti-coloured marbles, enamelled tiles and mosaic glittering with gold, depicting vegetable forms and famous cities. Below the gilded ceilings with their stucco ornaments ran a band of inscription on gold ground. The capitals were gilded. The piers and arches with their gilt keystones were decorated with mosaics. The interior of the dome was radiant with gold,... The pavement was of mosaic. The windows and the arches of the arcades in the northern wall were filled with gilded lattices and glass of many colours. The doors were of gilt metal."

(*Moslem Architecture*, by C. T. Rivoira.)
To carry out this extensive work of embellishment and decoration, Walid invited master craftsmen from various parts of the world, which according to Ibn Batuta, were about twelve thousand in number. It is said that in the construction of this mosque the intention of Walid I was to eclipse the magnificence and splendour of the greatest Christian churches just as his father, Abd al-Malik, had done previously by his Dome of the Rock at Jerusalem.

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THE FALL OF THE UMMAYYADS AND THE RISE OF THE ABBASIDE KHILAFAT AT DAMASCUS

● The election of the Umayyad Osman as Khalifa, brought about a faction between the houses of Hashim and Umayyad that ultimately divided the Muslims into groups. The assassination of Imam Hussain at Karbela, which is supposed to have been instigated by Yazid bin Muawiya, increased the already bitter antagonism and impelled Ibn Zubair to proclaim himself the Khalifa at Mecca. After the death of Yazid and the short reign of his feeble son, the people of Damascus elected Marwan I as their Khalifa and he was succeeded by his son Abd al-Malik. After coming into power, Abd al-Malik's main object was to reduce the power of his rival Ibn Zubair at Mecca, and to realise this objective he planned to divert the annual pilgrimage from Mecca to Jerusalem. As I have mentioned before, it was for this reason that he built and

decorated most lavishly the Dome of the Rock. The Umayyads had not only the Alyites as their enemies but also the Abbasides and the Kharijites, a theocratic sect. The Alyites were crushed by the Umayyads and thus the Abbasides were relieved of a potent rival. The Abbaside emissaries, who were spreading their propaganda in all directions, endeavoured to bring about the downfall of the Umayyads, but in spite of their efforts, Walid, the son of Abd al-Malik, enjoyed a life of luxury and gratified his æsthetic taste in his capital at Damascus, while his generals and admirals carried on the extensive work of conquest in all directions both by land and sea. His two generals, Musa and Tariq, carried the flag of Islam to the peninsula of Spain and thus relieved her inhabitants from the Christianised but corrupt barbarians, the Visigoths. Before the invasion of Islam the history of Spain was made up of enslavement, rapine and devastation by Carthaginians, Phœnicians, Romans and Visi-

goths successively. But under the Muslim rule, Spain for about eight hundred years enjoyed that peace, prosperity and freedom that she had never before known. The Spaniards were permitted to retain their own religion, law and judges and were treated with extreme kindness and consideration.

● In 715 A.D. after ten years of magnificent reign, Walid passed away at the age of forty-two. His place was taken by Suleiman who died during the siege of Constantinople. In October 717 A.D. Suleiman's cousin, Omar II succeeded as Khalifa but he died in 720 A.D. He was succeeded by Yezid II who likewise died within four years leaving the Khilafat to his brother Hisham. In 743 A.D. Hisham died without expanding his domain, making place for his nephew Walid II. After a short reign of fifteen months he was followed by Yezid III who died of the plague within five months. After Yezid III came Ibrahim who was deposed after three months and

his place was taken by the grandson of Merwan I who was then the Governor of Iraq. During Merwan II's Khilafat the Abbasides and the Alyites succeeded in bringing about his downfall, and in 749 A.D. Abul Abbas-es-Saffah acquired possession of Khorasan and after a fierce battle with Merwan II he was successful in capturing the Khilafat. Merwan II was forced to flee for safety ; but while doing so, he was assassinated by the men of Abbas-es-Saffah.

THE RISE OF THE UMMAYYADS IN SPAIN

●After coming into power, Abbas assassinated all the friends and members of the Umayyad family except Abd al-Rahman, the grandson of Hisham, who somehow managed to escape into Egypt. There, avoiding inhabited regions, he roamed among the wandering Berbers who began to respect him for his princely appearance, learning and courage as well as his other accomplishments. His fame

reached Spain at a time when there was dissension between the Berbers of Tariq and the Arab Governor of Andalusia. After a few years Abd al-Rahman reached Andalusia where his appearance was hailed with great enthusiasm. The army of the governor joined the standard of the young prince and within fifteen months after his coming to the country, that is in 756 A.D., Archidona, Cordoba and Seville had acknowledged his Khilafat. He chose Cordoba as the seat of his government, and thus Seville the fairest city on earth, lost her claim as the capital of Spain. Brave, unscrupulous and instantaneous in action, Abd al-Rahman maintained his supremacy in Spain with valour and diplomacy. He annihilated the invading forces of the Abbaside Khalifa Mansur and of Charlemagne. The revolt of the Berbers in the north and that of the Yemenites in the south, long delayed the commencement of the Great Mosque which he built in Cordoba with great love and care.

INTRODUCTION OF THE HORSE-SHOE ARCH IN SPAIN

●After the capitulation of Toledo and the establishment of the Muslim rule by Tarik in 712 A.D., the Church of El Christo de la Luz was divided and used as a mosque. In 980 A.D. this building was so completely remodelled by Musa ibn Ali, the Moorish architect, that except for the outer walls and a few columns, no vestige of the previous structure is left. This accounts for the horse-shoe arch and many other architectural details characteristic of Islamic Architecture in that structure. Writing about the horse-shoe arch, C. T. Rivoira, in his book on Muslim Architecture says, "And everything tends to prove that, as formerly at Damascus the Ummayyad Walid I (705-15 A.D.) had raised the horse-shoe arch to the rank of a constructive system, so now at Cordova another Ummayyad was the first to apply the system brought into being under the auspices of one of his

family.” It was from here that the horse-shoe arch reached Asturias in Northern Spain through the channel of the Mozarabic monks who unwilling to live under a Muslim monarch, left Cordoba during the reigns of Abd al-Rahman II (822-52 A.D.) and Mohammad I (852-86 A.D.). After the architects of Abd al-Rahman I had introduced this form of arch into the great Mosque at Cordoba, the Spanish Christians began to use it in their churches and other public places. According to Rivoira, the Western Gate of Cordoba betrays to an experienced eye signs of alteration, an event which took place in Muslim times, indicating that the horse-shoe arch was substituted in place of the original form of arch.

SPAIN—THE MOSQUE AL-JAMI', CORDOBA. 786 A.D.

●The place upon which Abd al-Rahman desired to build this mosque was a deserted church of the Cordoban Christians, half of which was already being used by the Muslims as a mosque. Abd al-Rahman instructed Ummaya ibn-Yezid his favourite secretary, to negotiate for the purchase of the site. The stubborn refusal of the vanquished people to the offer of their master and his lengthy but quiet persistence, indicates the supreme sense of justice of the Andalusian Monarch. How those stubborn people were eventually induced to relinquish their claim, was perhaps through the comparison of their present lot with that of the past, or by the comparison of their present freedom with the tyranny which their fathers had endured incessantly under their Christian kings. Thus came to them the realisation of the great toleration of an alien, who could easily have taken by force that

which he desired. When at last the Christians decided to surrender their church, Khalifa Abd al-Rahman was already well advanced in years, so having paid the agreed sum to them, he ordered the work to commence immediately. Invitations were sent throughout the Muslim world to famous craftsmen and designers for their co-operation in this noble undertaking. The workshops and studios of the artisans were busy turning out the various requirements, and furnaces and kilns were producing bricks and tiles of beautiful designs, while the quarries were explored for stone and other building materials.

●The enthusiasm of the aged Khalifa to complete this enterprise was so great that he took up his abode near the scene of construction and spent many an hour watching its progress. Two years after its commencement, the mosque rose above the groves by the River Andalus, surpassing in height the Alcazar of Rodrigo. Its graceful rows of double

arches and beautiful porticos, its handsome facade of eleven entrances and its carved and painted roofs and decorations, were gradually coming into shape. The fear of the Khalifa that he would not live long enough to see this beautiful Jami' Mosque completed, became more acute as the work progressed, and the day came when Abd al-Rahman the Wise and Victorious lay wrapt in a white shroud in one of the chambers of Al-Cazar. This sad occurrence was announced to the people of Cordoba from the very pulpit of Al-Jami' from which the Khalifa had hoped to deliver Khutba to his people. It is regrettable that the man who so lovingly commenced this noble edifice could not live long enough to see it finished.

● Its completion in 794 A.D. was reserved for his favourite son Hashim I, who like his father, took a keen interest in this project. This Mosque Jami' of Cordoba is surrounded by high thick walls flanked by strong tower butt-

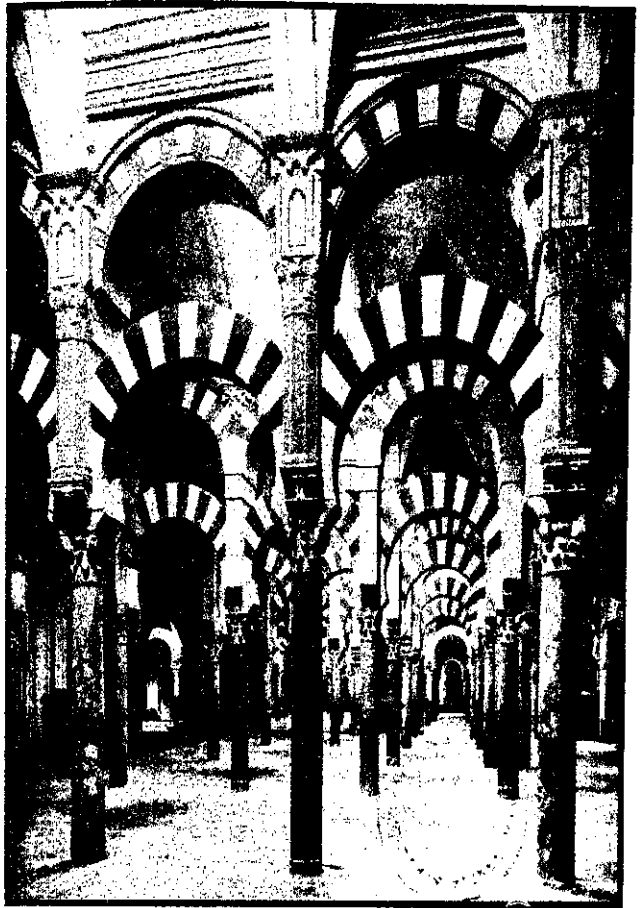


FIG. 20.

The Interior of Al-Jami' Cordoba, Spain.



FIG. 21.

Al-Jami' Cordoba now used as a chapel.

resses. It has nine huge and richly decorated outer gates and eleven inner doors. Inside the mosque is a great courtyard with orange and palm groves and fountains for ablutions. The liwan has eleven doors that glitter with most exquisite golden decorations and impart to it a most dreamlike appearance. The ornamentations in the interior of the mosque are of delicately carved white marble and sprinkled with gorgeous colours. It gives the appearance of mosaic laden with crystal and gold. The inscriptions in gold letters are either written on a ground of crimson or ultramarine, alternating with brilliant enamel work. It is impossible to describe the splendour and profusion of ornamentation on the arches, panels and domes. The geometrical arabesque, the fretwork and their thousand different combinations are indeed most charming. There is hardly a monarch of the illustrious Ummayyad family who did not contribute towards the decoration of this sumptuous edifice. Hakim's son, Abd al-

Rahman II, added the gilt work which his son Mohammad tried in vain to finish during his lifetime. So the noble work of finishing this superb mosque was left to Mohammad's son, Abdalla, who besides finishing the gilt work added a few other improvements to the building.

● Abd al-Rahman III, called An-Nasir, pulled down the old minaret and raised in its place one so superb, that it stands matchless to this day. In the sanctuary of this mosque was once kept the famous Mimbar or the Pulpit of Hakim II which, according to the Arab historians, was made of the finest materials and workmanship. Ivory, ebony, red and yellow sandal-wood, gold and Indian Aloe were used in its execution and eight master craftsmen working every day took nine years to complete it. In the western part of this mosque, Hakim II constructed Dar-as-Asdaca or the Alms Chamber and endowed it in a generous manner. Even this was finished with gilt

work and painted stucco ! Just outside the mosque he established lodgings for travellers and needy students where they could also receive their meals and to the ablest among them he gave handsome annual pensions.

●The maqsurah was provided with three doors of exquisite workmanship covered with plates of pure gold and its floor, it is said, was paved with silver. The ceiling was covered with oval cartouches bearing inscriptions from the Holy Quran, which under the Christian rule were completely effaced. The sahn was paved with porcelain tiles and at night the entire mosque would glitter with the light of two hundred brazen chandeliers of various sizes. In 1238 A.D. King Ferdinand and his nobles, following the example of their lord and master, ruined this gorgeous building by removing a number of columns to make room for chapels of their favourite saints.

THE RISE OF BAGHDAD, 762, A.D.

● While the Umayyads were spreading culture and enlightenment in Spain and beautifying Cordoba with mosques, madressas and other public places, the second Abbaside Khalifa, Abu Jafar Mansur, the brother of Abbas es-Saffah, founded the city of Baghdad, often mentioned as Dar al-Salam, the City of Peace, in 762 A.D. This transference of the capital from Damascus where Greek influence was predominant, to Baghdad where Persian influence prevailed, was of vital importance to Muslim Architecture, for we notice that instead of the cut-stone monuments of the Umayyads, the early Abbasides made use of brick and stucco. Under the Abbasides, the chief influence was Persian and Asiatic because of the Bermicides and mercenaries from Persia and Khurasan who brought them into power. It was for this reason that politically and more so culturally, the Persian influence was predominant for a consider-

able time. At court the Persian costumes were in fashion and the learning of Persia and India were greatly encouraged.

● Mansur's own palace was erected in the centre of Baghdad so that it could be approached quite easily from all quarters. All round the city were ramparts with a hundred and sixty towers and around this a moat which received its water from the Tigris. The finest artists, craftsmen, masons, painters and builders were invited from Syria, Mosul, Persia and Babylonia for the embellishment of the new capital. Four overseers were appointed to supervise the builders, land surveyors and craftsmen, one of them being Imam Abu-Hanifah, the founder of Sunni theology. He is said to have devised the method of measuring brick stacks with a graduated rod to calculate their number. Near his palace of the Golden Gate, in the heart of the city, Mansur built a great mosque of sundried bricks set in clay, with its roof

supported on wooden columns. This primitive structure was pulled down after fifty years by Khalifa Harun al-Rashid in 809 A.D. who erected in its place a mosque of kiln-burnt bricks set in mortar. A little before his death, Mansur nominated his elder son Isa, his successor, but later caused him to renounce his claim in favour of his second son Mahdi. It is related of Mahdi that when he made his first pilgrimage to Mecca as Khalifa, he had with him besides all the luxuries which wealth can provide, camels bearing freights of snow from Khurasan, to cool the desert air. On reaching Mecca he distributed millions of gold coins among the poor inhabitants and presented a heavy silken Mahmil for the Kaaba. He enlarged the Mosque at Medina and adorned it in a manner worthy of a great ruler. To mark the distances mile-stones were introduced from Baghdad to Mecca and wells, cisterns and caravanserais were erected for the comfort of the pilgrims. Thus his extravagant spirit manifested

itself in public works for the advancement of his domain. In spite of all this, his reign is marked with turmoil and revolution, so in 784 A.D. at an early age, he decided to ensure the throne for his son Harun, the conqueror of Constantinople, but his accidental death while hunting frustrated his plans.

● After Mahdi his son Hadi was proclaimed the Khalifa in 785 A.D. but was murdered within twenty-five months at the early age of twenty-six years. Thus his younger brother Harun al-Rashid who realised the immortal Baghdad of the "Arabian Nights" came into power. It is regrettable that this wonderful city was so completely destroyed by Hulaku Khan in 1258 A.D. that not a vestige of it remains in the present city of Baghdad. Even more surprising than this is the fact that neither any work of the Abbaside Architecture nor any ruins remain to tell the tale that can be dated with any degree of

probability earlier than the reign of Muta-wakkil. During the reign of Harun al-Rashid, Baghdad became a centre of arts and learning. Here poets, jurists, artists and musicians thronged from all parts of the globe. It was the most brilliant time in the history of the world, for in the East ruled the glorious Harun al-Rashid while in the West the imperial Charlemagne and the cultured Ummayyads. We learn from the Arab writers that in magnificence, Baghdad reached its zenith between 786-809 A.D. and that the architectural work of this period was free from Byzantine influence. But like Basra and Kufa, the land between the Euphrates and the Indus is destitute of any architectural remains of this great age. Of the ancient glories of Baghdad, nothing remains but a few fragments of walls of a madressa and one or two domes. Outside Baghdad there is a monument with a pyramidical roof which probably belongs to this epoch. It is known as the Tomb of Zobeide, the favourite wife of

Harun al-Rashid. It is about 80 feet in diameter, 130 feet in height and is octagonal in plan with an entrance porch attached to one side. The same type of roof occurs again in another building near Baghdad called the Tomb of Ezakiel, but there is no clue available indicating its date of construction.

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MESOPOTAMIA—THE MOSQUE OF SAMARA, 847 A.D.

●After the death of Harun al-Rashid in 809 A.D. his eldest son Amin succeeded him, but he was assassinated in 813 A.D. and the very next day his brother Mamun was proclaimed Khalifa in the streets of Baghdad. In 833 A.D. Mamun died suddenly leaving the Khilafat to his brother Motasim and urged him to rule for the good of the people. Motasim was detested both by the army and the public because of his unorthodox views on religious matters. This hatred became so intense that he had to surround himself with a body-guard recruited from prisoners captured in Turkestan. Naturally the foreign influence which Mamun had encouraged in the court went on increasing as opposed to that of the Arabs. These Turkish soldiers of the Khalifa soon became so uncontrollable that in the first half of the 9th century they caused trouble with the

citizens of Baghdad. This forced the Khalifa to remove them to Samara where he built barracks for his bodyguard and a palace for himself. During Motasim's short reign of eight years and eight months, the Turkish influence increased bringing in its train disorder and decay. His son Wathek, who like his father was a great patron of arts and letters, brought Mecca and Medina under his sway and endeavoured to bring about prosperity throughout his domain. It is said that beggary was almost unknown during his time. But the people of Baghdad were neither pleased with his religious views nor the growing influence of the Turks in the affairs of state. So when Wathek died without naming his successor, these Turks placed Mutawakkil (847-61 A.D.) upon the throne.

● In 846-52 A.D. Khalifa Mutawakkil built the great Mosque at Samara at a cost of 500,000 dinars. It lies on the river Tigris. The ruins show

that it was of enormous size and according to Miss G. L. Bell, it is 240×157.6 meters inside the walls. At each angle there are huge circular towers and along the walls are semi-circular towers at regular intervals. The mud and timber roof was supported on brick piers in the form of irregular octagons with square bases. Each of these piers had four marble shafts built in three sections joined with metal dowels. These shafts were surmounted by small and delicate bell-shaped capitals. The outer walls of the mosque were made of bricks. Instead of the mihrab, the qibla-wall had three arched doorways and a range of windows with cusped heads. This type of window also occurs in the Mosque of Ibn Tulun at Cairo. It is rather difficult to give any reason for the innovation of the three doorways in the qibla-wall, for they are bound to disturb concentration during the "nimaz", thus rendering the prayer "makrukh" or ineffective. The liwan had ten rows of columns while the other

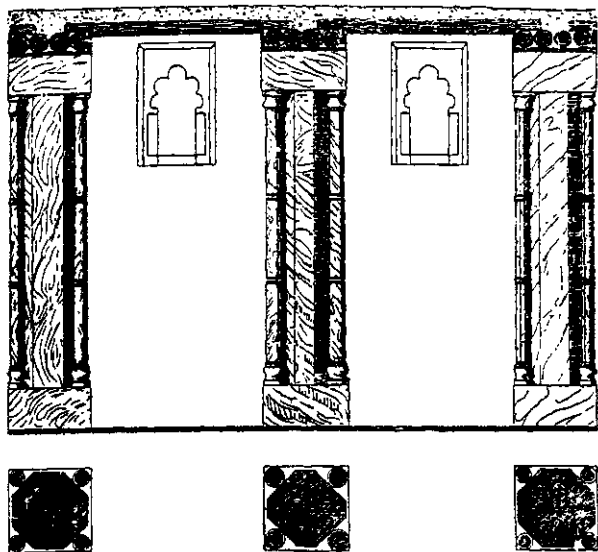


FIG. 22.

Brick piers from the Mosque at Samara. According to Sarre-Herzfeld, these supports consisted of brick columns in the form of irregular octagons resting on square bases. At each angle was a marble column either circular or octagonal.

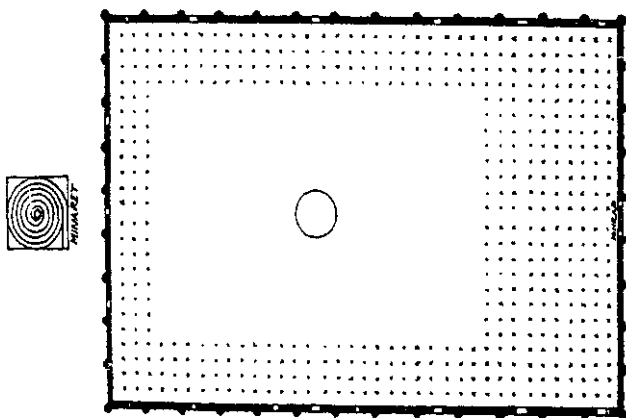
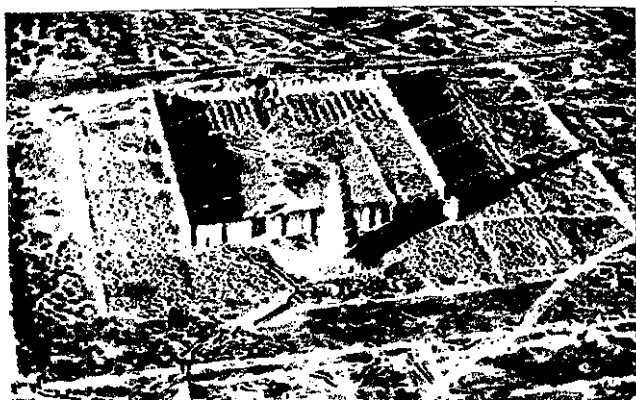


FIG. 23.

Above is an air view of the Mosque at Samara, Mesopotamia.
Below is the Plan of the Mosque at Samara, after Sarre-Herzfeld by Briggs.

colonnades had only four rows each. Flat timber lintels on top of these columns imparted strength and solidity to them. Outside the mosque, opposite the qibla-wall, stands a spiral minaret made of crude bricks, its top ornamented with niches. Originally the entire structure was covered with coloured stucco worked in patterns. This minaret is also called the "Malwiyyah Tower" and according to some critics was derived from the Assyrian "Ziggurats" or stage towers.

THE MOSQUE OF ABU DULAF

● Not far from the "Malwiyyah Tower" rises another of the same construction now in a rather dilapidated condition. It is the minaret of the Mosque of Abu Dulaf. This mosque was raised much later than the Mosque at Samara and like it was made of crude sun-dried bricks decorated with painted stucco worked in beautiful patterns. Kiln bricks were used only for piers and at

angles. The bastions to the enclosure wall and the minaret are rounded. This is another example of a mosque without a mihrab. Its liwan and other arcades had pointed arches carried upon brick piers. Both at Abu Dulaf and at Samara the arcades of the liwan and the colonnades run in the direction of Mecca and not across it.

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EGYPT—THE MOSQUE OF IBN TULUN, 868 A.D.

● Ahmed ibn Tulun was the son of a Turkish slave named Tulun who was presented to the Khalifa Al-Mamun by the Governor of Bukhara in 815 A.D. This slave rose to an important position and his son Ahmed received a very fine education at Baghdad, Tarsus and Samara. Four years after the death of Khalifa Muttawakkil, the Turkish troops deposed his successor Al-Mustain and assumed complete control of affairs. They appointed Ahmed ibn Tulun the Governor of Egypt in 868 A.D. When he came to Egypt he founded the city of Al-Qata'i which was considerably south of the present city of Cairo and consisted of the suburbs of Al-Fustat and Al-Askar. It covered an area of a square mile and within its boundary lay a library, a mosque, a hospital, baths, markets, large and luxurious houses, beautiful gardens and many other public buildings worthy of a

modern civilised capital. Water for the city was brought by an acquaduct, portions of which still exist to-day.

●In the centre of the town, Ahmed ibn Tulun erected a large mosque on a site measuring about six and a half acres, four of which were taken up by the mosque itself and the rest by an extra space or "ziyada" which is a passage about sixty feet wide running around the three sides of the mosque. The outer wall of the mosque is made of fire-burnt dark red bricks put together with mortar made from lime. It is ornamented with large cusped-headed niches, almost identical with those at Samara, alternating with windows. The northern side has five entrances from the ziyada, the western side has two, the southern side, four, while the eastern side possesses only one entrance.

●To construct a mosque worthy of so great a king, the architect

required three hundred columns. Though it had been customary to take columns from the Christian churches, in the same way as the Christian builders of Italy utilised columns of the classic temples, Ahmed ibn Tulun was not at all pleased with the suggestion and hence the work of building this noble edifice was held back until an architect undertook to build the mosque without a single column. According to some writers, this architect was a Christian formerly employed by the Amir, but was then in prison. He agreed to build the finest mosque in the world without using a single column. This so pleased Ibn Tulun that he not only pardoned the architect but also gave him a handsome reward and entrusted him with the work. It is needless to say that in place of columns, brick piers cased in plaster were used. Concerning the origin of these brick piers, the present theory is that they were copied from the Mosque at Samara in Mesopotamia. Since the childhood of Ahmed ibn Tulun was spent

in Baghdad and later at Samara on the River Tigris, it is quite conceivable that Khalifa Mutawakkil's new mosque there might have served him as a model for his own mosque at Cairo. Many writers believe that it certainly supplied him with the motif for the design of his minaret. From the accounts of ancient writers this Mosque of Ibn Tulun at the time of its glory was full of the most beautiful and rich decorations. To-day there can yet be seen traces of beautiful mosaics, marble pavements, carved-wood inscriptions and plaster work. The arcades are made of massive brick piers and the whole structure, which is also of brick, is covered with plain and ornamental stucco. These rectangular piers have four engaged angle columns with capitals bearing ornamentations of buds and leaves made in stucco, which are attempts to imitate the classical Corinthian capitals. They support pointed horse-shoe arches also made of bricks set in mortar and covered with several coats of stucco. Both on the walls and around

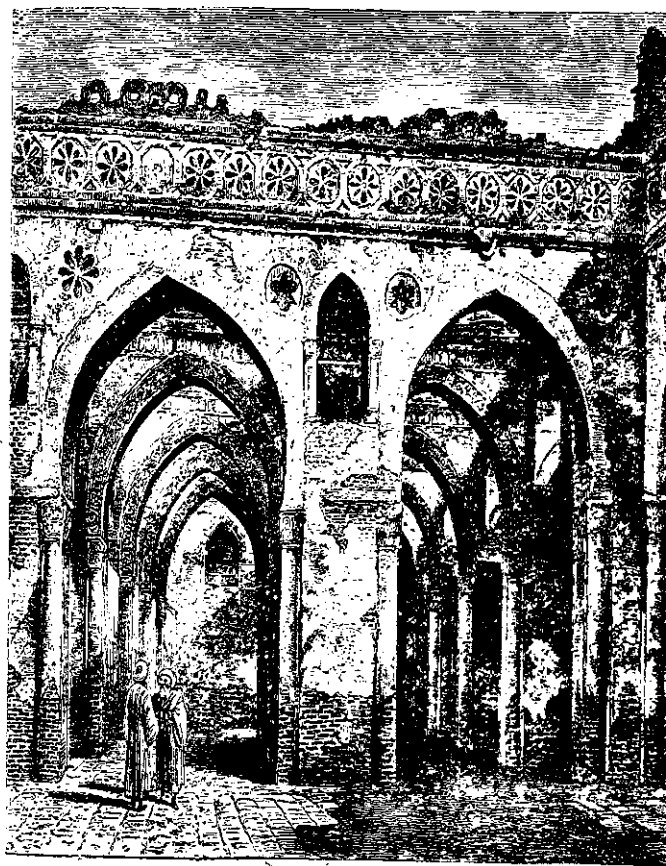


FIG. 24.

A view from the Sahn of the Mosque of Ibn Tulun showing brick piers with engaged columns and capitals made in stucco.



FIG. 25.

Bird's-eye view of the Mosque of Ibn Tulun. The domed structure in the courtyard is the fountain for ablutions.

the arches, there are bands of rosettes in stucco. The spendrills which are the spaces between the arches, have small window-like openings with pointed arches and engaged columns. The stucco decoration which later became the principal feature of almost all succeeding Islamic decorations, was applied earliest in the Mosque of Ibn Tulun. Later still we find it used in stone, wood, plaster, metal and glazed tiles in various manners. This form of decoration most likely came to Egypt from Mesopotamia, the land of brick builders.

● Now let us consider the origin of the pointed horse-shoe arch. There is no doubt that the Mosque of Ibn Tulun, besides that of Abu Dulaf at Samara, is the earliest dated example of importance in which this form of arch is used structurally. For once Rivoira and his opponent M. Dieulafoy happen to admit and agree that this architectural form was neither derived from Rome nor

from the Visigothic churches of Northern Spain. Mr. Havell's contention that it came from India would have been worth considering, if his examples which are Ganesha and Bihma Rathas in Madras, were not carved out of stone.

● Another feature of Mesopotamian origin in the mosque is the corkscrew minaret which like its prototype stands opposite the qibla-wall in the ziyada. Its total height is 130 feet, but unlike the minaret of Abu Dulaf in Mesopotamia is made of hard limestone and has a square lower portion. Above this square lower portion is built a circular stage round which runs an open staircase. Above the round stage are two polygonal stages rather different in design from the rest and of a much later date. Cresswell thinks that originally the minaret was entirely circular and therefore the square portion is the later addition. In the liwan, the mihrab is undoubtedly the most attractive feature. Its upper semi-dome portion

which is decorated with mosaic and calligraphic inscriptions, is supported on four pillars with boldly cut capitals of Byzantine nature, while the lower portion is lined with stripes of marble. Besides this mihrab, there are four more built on the outer range of piers. They are not of the niche formation but consist of flat ornamental stucco panels and belong to various periods from the 10th to the 13th century. One of them was built by Al-Afzal, son of Badr al-Jamali in 1094 A.D. It is a charming specimen of stucco work, richly designed with ornamental and exquisite Fatimid inscriptions. Again there is a great deal of controversy about the origin of the mihrab. Havell, as usual, ascribes its origin to the niche-forms found in Buddhist temples which are used for sacred statues. Rivoira contradicting Havell states that it was derived from the apse of Christian churches. But M. S. Briggs thinks that since the niche is a very elementary feature in architectural development and that the early Muslims

were careful not to imitate Christians or other infidel rituals for their worship, they adopted this form merely for its simplicity. In my opinion, it was the form of hands at the time of Dua that first inspired the idea of the mihrab.

● Over the space immediately in front of the mihrab, there is a dome which is now in a very dilapidated condition. In the sahn, there is a domed structure which is a cistern for ablutions. This small edifice, along with the pulpit, the smaller minaret, the beautiful lattice windows, the four stucco mihrabs in the sahn and the upper part of the main minaret, are later additions by Sultan Lajin in 1296 A.D. Another remarkable feature of this mosque is the ornamental wooden frieze just below the roof. It is carved in Kufic script that closely resembles the old Syriac characters. Originally this frieze measured nearly a mile and a half in length and each letter was about eight inches in height. To-day this

mosque stands bare and deserted, its ornamental features decayed and ruined and yet it still presents an impressive sight.

● The bare brick work with its peeling stucco can give no idea of the mosque which at the time of its glory was a dazzling mass of colours and gold exquisitely placed against a white background. I can do no better than to present Gayet's word picture of the mosque on the day of its opening, translated by M. S. Briggs from *L'Art Arabe*, "It was on a Friday in Ramadan in the year 265 (A.D. 879) that this ceremony took place. Mosaics then lined the walls up to the cornice; a marble pavement covered the ground, and over it fine mats and carpets were laid.....the whole Qur'an was inscribed in golden letters over the arcades; there was an open-work frieze made, according to some authors, of amber marvellously fashioned. The fountain-pavilion for ablutions had a colonnade of marble; in the centre was a jet of water rising from a

basin of Oriental alabaster; between the columns was an open screen of gold, and from the star-spangled ceiling hung lamps and censurs. In the sanctuary the *qiblah* shone with gold and colour; the *mimber* and *dikkah* were of rare wood.....In the evening, as darkness fell, great bronze lamps, hung in rows from the centre of each arch, formed lines of light; lozenges of amber were scattered all over the ground and filled the liwans with perfumed clouds, so that in this twinkling of lights, this whirl of scented shadows, all hardness of form faded away; the lines of the building became no more than a grey and mysterious fantasy, lit up with changing colours and charged with elusive perfume."

THE FALL OF THE TULUNIDES IN EGYPT AND THE ABBASIDE KHILAFAT IN BAGHDAD

● Though Ibn Tulun held his kingly state in Egypt, he was nominally under Al-Muwaffak, the brother of

Khalifa Motamid. In 878 A.D. he threw off all semblance of obedience to the Khalifa and went on expanding his domain. He dreamt of a North-African Kingdom and to realise this he made an effort to take Tripoli, but was driven off by the Aghlabid Prince of Tunis. In 882 A.D. when Al-Muwaffak usurped the Khilafat from his brother, he endeavoured to bring Egypt under his control. On the death of Ibn Tulun in 884 A.D. his second son, Abul Geysh Khumaraweyh took over the reigns of government. At this time in Baghdad, after the death of Muwaffak, came the new Khalifa Al-Motadid who preferred an understanding between Egypt and Baghdad and established it by marrying the daughter of Abul Geysh. After the murder of Abul Geysh by his slaves, his two sons succeeded him one after the other. They were young and incapable and hence the Turkish officers ruled Egypt as they pleased. His second son Abu Musa Harun was murdered by his uncle Sheyban who took over the government. He was taken

prisoner by Mohammad bin Suleiman, the general of Khalifa Motadid of Baghdad. The invading army destroyed the beautiful city which Ibn Tulun had created and with it fell the house of Tulun, and once again in 907 A.D. Egypt came under the rule of Muqtafi the Khalifa of Baghdad. At this happy juncture Muqtafi died and the Khilafat was passed on to his young brother Muqtader, a boy of thirteen years of age. So the task of government was carried on by the eunuchs and other members of the palace. Under his rule, Musal declared its independence and one of the eunuchs laid siege to Baghdad and killed the young Muqtader in 932 A. D. Thus the grip of the Turks tightened upon the decaying Khilafat. Muqtader's successor Qaher after eighteen months of reign, died in poverty as a beggar. In the year 934 A. D. the Turks took from the prison a nephew of the late Qaher and made him the Khalifa.

● Thus we find that the rivalries of the opposing rulers, the am-

bitions of the Turkish mercenaries, the feebleness of the Khalifas and destructive sectarianism caused the downfall of the Abbaside Khilafat. No one can deny that the instantaneous growth of an extensive domain with divers peoples and civilisations, gave the simple desert folk very little opportunity to learn the art of ruling. Yet in spite of the continuous internal and external strife that occupied most of their time, the Saracens showed a remarkable genius in managing the affairs of state. The puppet Khalifa Radi, whom the princely king-makers of Baghdad had put on the throne in 934 A.D. gave himself up to pleasure and frivolity, with the consequence that Khurasan, Transoxania, Persia, Mesopotamia, Egypt and Africa, all declared their independence. After the death of Radi, two dynasties established themselves upon the ruins of the Khalifat. They were the Buvides and the Seljuki Turks. Between 953-72 A.D. the Fatamids made themselves masters of Africa and Egypt and founded Cairo.

FATAMID ARCHITECTURE IN CAIRO—JAMI' AL-AZHAR, 969 A.D.

●After the death of Ahmed ibn Tulun in 884 A.D. to the accession of the Fatamid Khalifa in 969 A.D. there is a long break in the sequence of development in Muslim Architecture. About twenty years after the death of Ibn Tulun, Egypt came under the sway of Khalifa Muqtafi of Baghdad in 907 A.D. The new suburb and the mosque which were so lovingly built by Ibn Tulun were left to decay. In place of the Mosque of Ibn Tulun, the old Mosque of Amr once again became the Jami' of the city. It was about this time that the Fatamid or the Shiah dynasty originated in Northern Africa. A certain Berber missionary on coming back home acquired great influence among his people and after a short while was able to dethrone the Aghlabid Governor at Qairwan. Thus in 908 A.D. the Fatamid Khilafat was established in Northern Africa and the Khalifa assumed the

title of Mahdi. His domain extended from the Atlantic to the border of Egypt and the Muslim Governor of Sicily owed him allegiance. Before Moizz the Khalifas of this dynasty were men of brutal disposition who caused the Europeans to hate the Saracens. In 969 A.D. General Jawhar was able to conquer Cairo for Khalifa Moizz and in 970 A.D. he built the great Mosque of Al-Azhar. The Fatamid dynasty lasted from 969-1171 A.D. in Cairo. During this period the buildings that were raised by the Fatamid Khalifas present a style which is termed Fatamid Architecture. In the beginning, Al-Azhar was the Friday Mosque of the city but under Al-Aziz, the son of Moizz, it became the centre of learning. To-day it is one of the oldest and most renowned universities of the world and has been for centuries the centre of Muslim learning. Thousands of students from different parts of the Muslim world still flock to study there. They pay no fees, but on the other hand the needy among them are provided

with meals and clothing. It is built within the walls of Qahira on a site measuring 300 feet by 250 feet and enclosed by brick walls the longer sides of which face towards Mecca. Outside the mosque the public scribes can often be seen writing letters at the dictation of their customers.

● The mosque has five entrances of which two are the most important. Bab esh-Shurbah or "The Gate of the Pottage" is very picturesque and charming, and the other, the imposing "Gate of Barber" leads into the vast and beautiful forecourt of the mosque panelled with marble. In the court there are a few cisterns which are used for ablutions. The liwan of the mosque is made of 380 Graeco-Roman columns and capitals carrying keel arches or the pointed maxtilinear arches as they are often called. Some writers think that this form of arch was derived from Persia, but the more recent theory is that they were invented by the architect of Al-Azhar

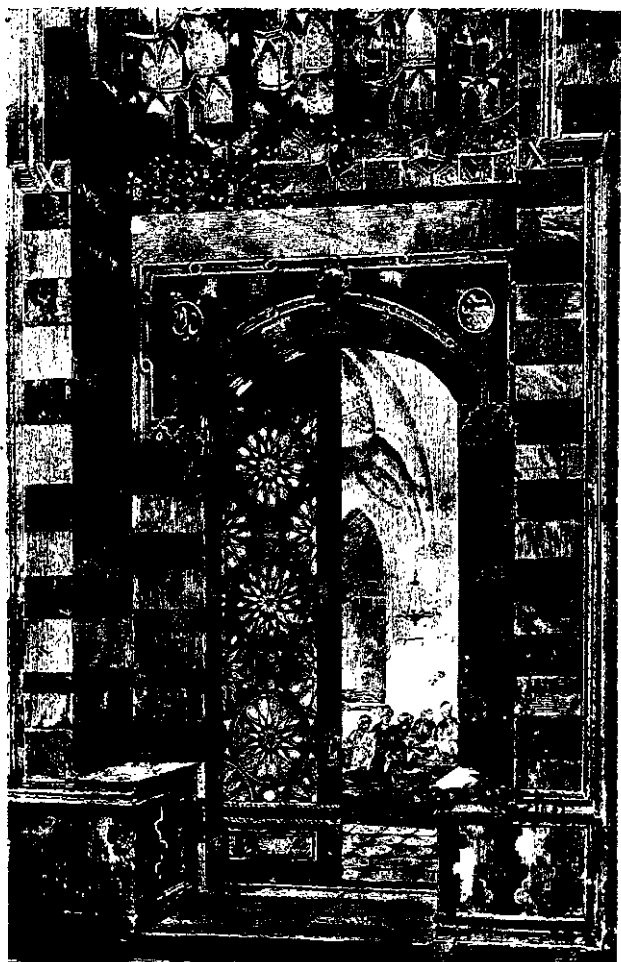


FIG. 26.

Bab As-Shurbah (One of the Gates of Jamil' Al-Azhar).

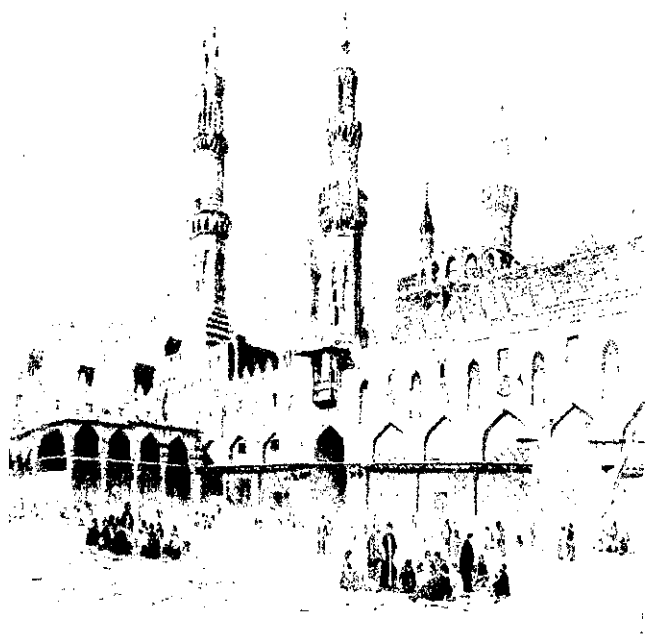


FIG. 27.

The Sahn of the Mosque of Al-Azhar where students from all parts of the Muslim World flock to study.

from a combination of the pointed arch of Ibn Tulun and the high imposts of the Qairwan arcades. Originally the liwan had only five arcades, four of which were made of columns and the fifth of piers with screen walls in between them forming the maqsurah. Similar screen walls are also built in front of the northern and southern colonnades called riwaks. Under their cool shade, scholars can always be seen absorbed in meditation. These riwaks are made of double columns and were added by Al-Aziz for the students. In front of this screen wall and all around the sahn runs the portico of keel arches built on columns, which separate the liwan and the riwaks from the sahn. These riwaks are provided with separate entrances. The wall above the arches of the portico is ornamented by shell-shaped niches and medallions and immediately over it rests an open work parapet which is crowned by "merlons." Above these keel arches there are circular decorations.

●Like the Mosque of Qairwan, the mihrab of this mosque is reached through a central nave with double columned arcades on each side and has a dome over the space immediately in front of the mihrab. It rests on three arches and the mihrab wall. According to Al-Maqrizi, this dome had two complimentary domes, one on each side, which have since disappeared. This idea of the triple dome is a Fatamid innovation. The transition from the square substructure to an octagon is brought about by the use of arched niches set across each angle. The octagon then changes into a circle which forms the base of the dome. The space between the arches, the upper part of the square substructure, the octagonal formation made of niches, the round base of the dome are all decorated with carved arabesque and calligraphic inscriptions in plaster. Exactly opposite Qait Bey's Door there is a small cupola above the entrance of the liwan. It is richly decorated with kufic

inscriptions in plaster and is supposed to be the only remnant of the original structure. The Barbers Gate which is the door that leads to the sahn, was built by the Mamluke Sultan Qait Bey in 1469 A.D., who also added a most charming minaret to this mosque in 1494 A.D. This unluckily is dwarfed by the other minaret which was planted near it by Sultan Al-Ghourey in 1501 A.D. The new addition, a double-headed monster, is far from being an elegant asset. This mosque-university was greatly damaged by the terrible earthquake of 1302 A.D. but luckily it was carefully repaired by various Mamluke Sultans and Princes of Egypt. Among these, Sultan Qait Bey, whom Lane-Poole calls "The Prince of Cairo Builders," and Sultan Hassan are most eminent. Quite a number of restorations and additions were carried out during the Turkish period and later by Abd al-Rahman Katkhoda in the 18th century and finally by the late Khedive Abbas Hilmy Pasha. These alterations and addi-

tions have so completely changed the mosque that it is difficult to suggest its original plan accurately.

THE MOSQUE OF AL-HAKIM 990 A.D.

● This mosque which bears the name of Al-Hakim was founded by Al-Aziz, the successor of Al-Moizz. Aziz is portrayed by writers as brave, comely in person and above all humane and of conciliatory disposition. He married a Christian wife, the sister of the Bishops of Jerusalem and Alexandria. Both the Jews and the Christians not only enjoyed great freedom under his rule, but also held highest offices. The unbroken peace which the country enjoyed under his reign brought many fruitful results in the form of engineering and architectural triumphs like the Golden Palace, the Pearl Pavilion, his mother's mosque in the Kerafa Cemetery, canals, bridges, naval docks and above all the Mosque of Al-Hakim at Cairo. It was commenced in 990 A.D.

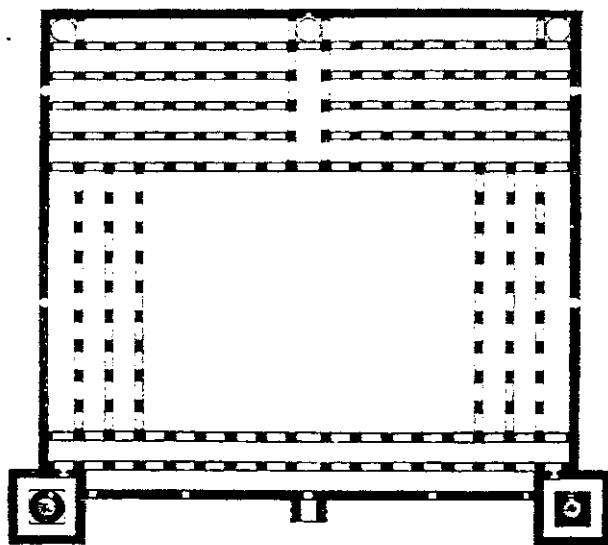


FIG. 28.
Above are the ruins of the Mosque of Al-Hakim and below
is its plan.

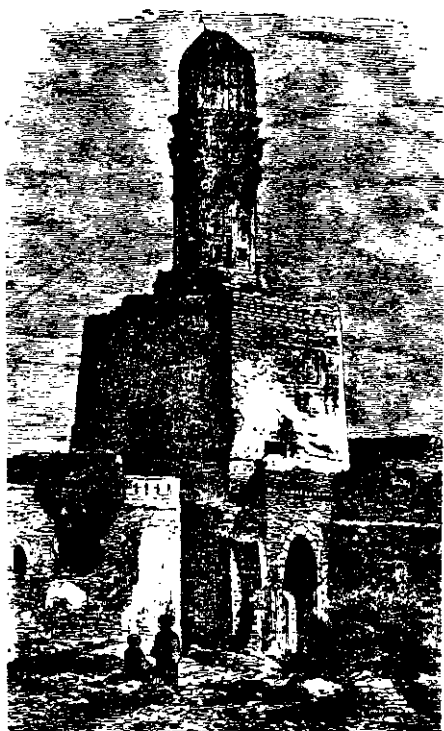


FIG. 29.

The Minaret of the Mosque of Al-Hakim, with square base made of stone work and the upper storeys of brick-work which are later additions.

and in the following year was opened for worship before it was completely finished. This Mosque Jami' like those of Ibn Tulun and Al-Azhar, was intended to hold the entire population of Cairo on Friday Prayer, hence it covers an area as large as that of Ibn Tulun.

● In plan it closely resembles its prototype the Mosque of Ibn Tulun. It is situated on the north side of Cairo near the gate called Bab al-Futuh which was also commenced by Al-Aziz and finished by Hakim. One of the great walls of the city forms its eastern side while the other three walls are made of beautifully dressed stones decorated outwardly with a band of kufic inscriptions. Here we see a change from the brick-work of the Mosque of Al-Azhar to mostly stone-work in the Mosque of Al-Hakim, showing that the influence of the stone building-nation in close proximity with a brick-building country, was predominant at this period. Its main liwan is five aisles deep and

the other three liwanat or colonnades each three aisles deep. They are made of slightly pointed horse-shoe arches carried on square piers of bricks with engaged columns covered with plaster. In place of the imitation Corinthian capitals of the Ibn Tulun Mosque, they have flat slabs. The arches are strengthened with ornate wooden tie-beams and like the Mosque of Ibn Tulun their spandrills have openings for light and ventilation and its timber roof was covered with mud. Immediately above the mihrab was a small brick dome which along with two minarets formed the most beautiful features of the mosque. The dome rested on three arches and the qibla-wall. The square substructure of the dome was made into an octagon by means of four plain pendentives with squat niches. It is believed that there was once a dome in the south-east corner of the mosque balanced by another in the south-west corner, an arrangement which was very similar to that of Al-Azhar. In the west wall is a monumental stone gate-

way elaborately carved with arabesques, opening into one of the liwanat that lead into the sahn of the mosque. On either side of this door, projecting outward from the enclosing wall, stood two tapering minarets of stone with square bases, the upper brickwork storeys being later additions. At about half its height, the northern minaret becomes octagonal. Inside its lower part are spiral stairs lit by rectangular windows which originally had stone grills pierced by interlacing geometrical patterns made of the Shield of David or the six pointed star. From a distance the minaret gives the impression of a huge pepper pot standing on a square pyramid. This mosque was completed in 1003 A.D. by Al-Hakim who can be called the Nero of Egypt. From 1010-13 A.D. is the period when decorations and embellishments were added to the mosque. It suffered severely in the earthquake of 1303 A.D. when the upper parts of the minarets, fell damaging a considerable part of its interior and the

roof and walls. It was repaired by various Sultans and Amirs of Egypt but at present it is a mass of ruins. Though Hakim was from a Christian mother, during his reign both the Jews and Christians lost many of the privileges which they had enjoyed under his father Al-Aziz, but nevertheless they continued to hold highest offices. The eccentricities of his character began to appear at a very early age. His strange face, terrible blue eyes and loud voice made people shrink and tremble. His madness reached its peak when he proclaimed himself God and was supported in his claim by some Persians. The only one among them who escaped the wrath of the people was Darazi, who fled to Lebanon and founded the religion of the Druses which exists to this day. The Khalifa himself could not escape the anger of the people. How he was put to death is still a mystery, for only his clothes and dead donkey were found. The mosque which bears his name was completed by him before he became aware of his own

divinity. With all his madness, Al-Hakim had gleams of intelligence and civic pride. He beautified Cairo and laid the foundation of Dar-ul-Hikma or the Hall of Science in 1005 A.D. for the promotion of Shiah theology, astronomy, lexicology, grammar, poetry, criticism, law and medicine. This luxurious establishment had a magnificent library supplied from the royal palaces and open to the public, where the intelligentsia of Cairo and visitors from abroad were invited to debate upon various subjects. On the desert slopes of Makattam, he built an observatory for astrological and astronomical calculations. Besides the Mosque of Al-Hakim he built the Rishida Mosque and a belvedere on the river bank.

●After the death of Al-Hakim, Abul Hassan Ali az-Zahir, his sixteen-year old son, was elected Khalifa in 1021 A.D. but he was not a fit person for the crisis which ensued after the horrors of Al-Hakim's reign. Robberies,

rebellions and murders were rampant. The treasury was empty. Slaves broke into revolt. The people crowded the palace crying for food that could not be had. Such was the reign of Az-Zahir, who combined the savagery of his father not with piety but with gross pleasure and sensuality. After his death through plague in 1036 A.D. his seven year old son, Ma'ad, from a Sudani slave girl, was proclaimed Khalifa. He took the title of Al-Mustansir and a large portion of his sixty years reign is marked by such tranquility and prosperity that for a while his name was prayed for in the mosques of his rival, the Khalifa of Baghdad. The city of Cairo became the market place of rare works of art produced in the country. The lustre pottery made at Fustat was so delicate that one could see one's hand through it. The green glass produced in Egypt was transparent and extremely beautiful. Nasir a-Khusrau, the Persian traveller who visited Egypt during the reign of Mustansir describes Cairo as the city of beautiful

houses, market places, mosques and khans where shops of jewellers and money changers were left unfastened. This tranquility and prosperity was not due to the ability of Khalifa Mustansir, but through the administration of his vazir Al-Yazuri, a man of humble origin from Yazuri near Jaffa. He was fired with a zeal to improve the lot of the peasants and the poor. This once caused him to sell the government corn reserves at a very low price, with the consequence that when the plague followed hard upon the famine, thousands are said to have died daily. Yazuri took care not to repeat this mistake again, so during the time of plenty he laid up an immense store of corn at Fustat and also stopped the abominable practice of usurers and profiteers of buying the standing crops at low prices. His hatred for the Copts of Egypt and his inordinate wealth brought about his downfall and soon after he was suspected of an intrigue with Baghdad and was poisoned in 1058 A.D. After him many vazirs came and

were deposed. The jealousy between the Turkish troops and the Sudani battalions favoured by the Khalifa's mother, resulted in long-drawn intrigues and fights which brought in their wake a terrible famine for seven years ending in a plague which accomplished in one day what the famine could not do in a year. This reduced even the Khalifa to such a state of destitution that he had to live upon the charity of Ibn Babshad's daughter who sent him two loaves of bread every day.

● In 1073 A.D., though a plentiful harvest put an end to the seven years famine, yet the government of the country did not improve. It was then that Khalifa Mustansir invited Badr al-Jamali, the Armenian slave who had risen to the position of the Governor of Akka (Acre), to take charge of affairs. He accepted the offer and brought with him his Assyrian troops who killed all the Turkish generals overnight and abolished their detestible despotism. Badr

al-Jamali was made Amir al-Juyush or the commander-in-chief, in place of the Turkish commander Ildegus. Within a short time he was able to restore order and peace and the palace property of the Khalifa Mustansir. Under him Egypt once again began to enjoy security and prosperity unknown for many a year, and for the first time since the reign of Al-Aziz, Cairo became the home of craftsmen and architects.

● While Mustansir ruled in Egypt, a new power was rising in the East. It was that of the Seljuqi Turks. They belonged to those hordes of barbarians from Turkestan who had settled in Khurasan by the permission of Sultan Mahmud of Ghazni, and after his death made themselves masters of the province in 1040 A.D. Eleven years after, they took Isfahan from the Buvides. Their leader Tugral Beg entered Baghdad in 1055 A.D. delivering the Khalifa from the tyranny of the Buvides and made

himself the Prince of Princes. The Seljuqs reunited the Abbaside Empire which had disintegrated into a number of provinces. By 1068 A.D. Alp Arslan, one of their princes, conquered the provinces of Armenia and Georgia and wrested Palestine from the Fatamids in 1071 A.D. It is said that the Seljuqs' treatment of the Christian pilgrims to the Holy Land was so bad that it gave rise to the Crusades. Although Alp Arslan embraced Islam, his attitude towards the Christians remained the same. By 1074 A.D. the whole of Asia Minor came under the Seljuqs and with it a large number of people with a distinguished stone-building tradition who greatly influenced Muslim Architecture, especially that of Egypt. Malik Shah was the last of the important Seljuq princes and under him the Seljuq Empire flourished greatly, but immediately after his death in 1093 A.D. it began to disintegrate. During his reign Ismailian assassins came into prominence who murdered eminent men, both Muslims and

Christians, ravaged extensive regions and captured strong castles. In 1100 A.D. in Armenia or Western Persia, a man known as Ayyub (Job) was born who became the father of the most illustrious son called Saladin, the beau-ideal of chivalry.

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THE MOSQUE OF AL-JUYUSHI 1085 A.D.

● This mosque, according to an inscription over its door, was erected in 1085 A.D. It stands upon the edge of Muqattam Hill above Cairo. Compared to the Mosque Al-Hakim or Al-Azhar, this Fatamid mosque is very small. It is rectangular in shape and measures only 50 feet by 48 feet, because huge sums of money were allotted for military purposes in view of the Seljuq menace and also because the immense resources of the earlier Fatamid period were not available. This is the first tomb-mosque or Turba as it is often termed, which makes it interesting to the student of architecture. It marks the beginning of tomb-mosques which later became popular throughout Egypt. The tomb, probably of the founder, is situated near the entrance of the mosque, and the other tomb to the east of the liwan dome is that of some saint. In this mosque we find various outside

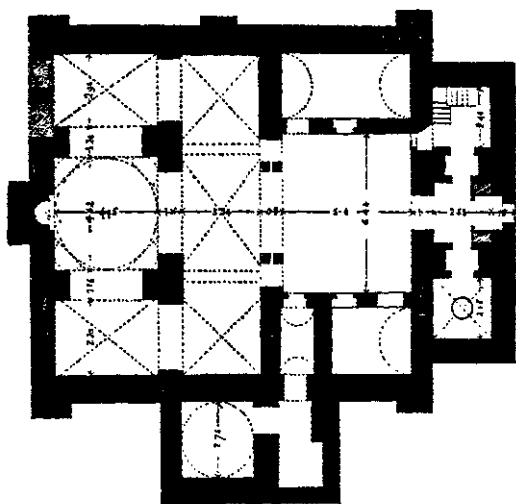
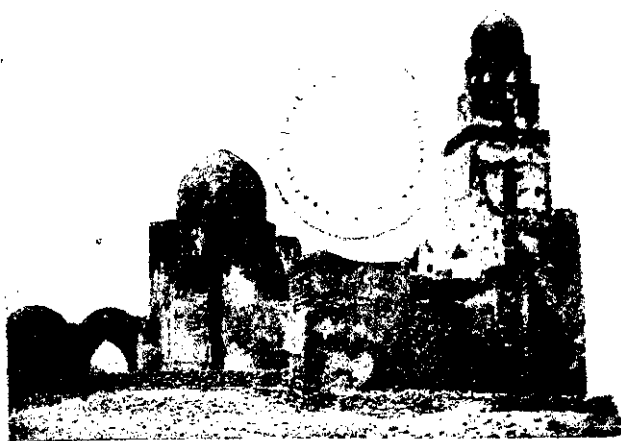


FIG 30.

Above are the ruins of the Mosque of Al-Juyushi and below is its plan.



FIG. 31.

Bab Al-Futuh. One of the Gates of Cairo built during the time of Badr al-Jamali.

influences which later became permanent features of the Muslim Architecture of Cairo.

●The mosque is built of plastered rubble stones. Its entrance is situated under the minaret which stands in the centre of a rectangular projection of the main building. On entering the door of the mosque, we find a small hall, on either side of which there are two chambers. The chamber on the right contains the staircase which leads to the roof and the minaret. The hall opens into the sahn, on either side of which are rooms with barrel-vaulted roofs. Beyond the left room is a passage which leads into a domed chamber containing the tomb of the founder. Facing the entrance door, beyond the sahn, are the three archways leading to the liwan of the mosque which measures 40 feet by 30 feet. The middle archway is much wider than the other two. The pointed arches are carried on coupled columns of marble with bell-shaped capitals; the

same form inverted being used for the bases. In the liwan, the most attractive feature is the mihrab which is decorated with inscriptions in kufic combined with arabesques and floral patterns. Above and in front of the mihrab is the dome which is carried on three arches and the wall of the mihrab. The change from the square substructure to the octagon of the drum is accomplished by means of high pointed-niche-pendentives similar to those of Al-Azhar and Al-Hakim. The octagonal drum is elongated to provide enough space for eight windows. The whole structure is crowned by a stilted dome, which in my opinion, is rather an ungainly shape. The top of the square substructure and the spandrills of the arches are decorated with calligraphic inscriptions and other ornamentations in plaster work. The dome and the simple minaret are made of thin bricks. The lower portion of the minaret is square, while its two upper stories are octagonal and on top of them rests a stilted dome, a smaller edition of the dome

of the liwan. With the coming of Badr al-Jamali and his Assyrian troops, the new influences which came into Egypt are evident by the change in the plan of the mosque. The introduction of a tomb-chamber and the use of intersecting vaulting and stalactites were motives which had not been so popular previously. This building is characterised by the absence of pointed arches, and appears rather Persian because of the plastered rubble stones.

THE GATES OF CAIRO

●Among the important military works of Badr al-Jamali is the rebuilding of the walls of Cairo. While carrying out this work he extended the town. The Mosque of Al-Hakim was included within the northern wall and its tower used for military purposes. This wall was furnished with two gates, Bab an-Nasr and the Bab al-Futuh, which were built in 1087 A.D. that is two years later than the Mosque Al-Juyushi. In the

southern wall he built another gate which is known as Bab Zuwaila. These three gates and the walls are made of stone, unlike the original walls of Al-Moizz which had been of crude bricks upon a foundation of rubble stone set in mud mixed with a little lime. All the gates are solid pieces of workmanship and are flanked by round towers except in the case of Bab an-Nasr, where they are square. The lintels are joggled stones with relieving arches above them. According to Al-Maqrizi, these gates were designed by a certain "John the Monk" and constructed by three brothers who were builders from Edessa in Syria.

●In the spring of 1094 A.D. Badr al-Jamali died at the age of eighty, so his son Abul Qasim Shahanshah succeeded him. He was given the title of Al-Afzal by Mustansir. On the death of Mustansir, his youngest son Must'ali, a youth of eighteen, was proclaimed Khalifa by Al-Afzal. Mustafa, the eldest son of

Mustansir resented being passed over, so he set himself up independently at Alexandria as Imam Mustafa. He is revered by the followers of Hassan bin Sabah, known to the Crusaders as "The Old Man of the Mountains." Imam Mustafa was defeated and he died in prison. When Must'ali died in 1101 A.D. his five year old son was duly enthroned by Al-Afzal who, like his father was an admirable administrator. In his time, the death of Malik Shah in 1092 A.D. and after it the breaking of the Seljuq Empire, put an end to fear of invasion from this side, but in 1096 A.D. the eastern march of the Crusaders began. By 1098 A.D. they captured Edessa and Antioch and in the following year Jerusalem and consequently Palestine and Syria came under their control.

●The Crusaders on entering the Holy City massacred 70,000 defenceless Muslims and Jews and later at Askalon attacked the unarmed Egyptians in spite of their flag of truce and set

fire to the woods where the fugitives had sought refuge. This infuriated Al-Afzal, and he took his revenge by defeating King Baldwin near Askalon, taking 300 of his knights prisoners and putting the rest to the sword. King Baldwin escaped death by hiding himself in a haystack. In 1109 A.D. the Crusaders came again with reinforcements and after a long struggle took Tripoli from the Muslims. The murder of Al-Afzal in 1121 A.D. weakened the position of Egypt to such an extent, that it could do no more than remain on the defensive. His successor Ibn al-Bata'ihi called Al-Mamun, though a capable and tolerant minister, could not keep his place long and was crucified in 1125 A.D. It was he who built the Mosque of Al-Aqmar, "The Grey Mosque," in the Sharia an-Nahhasin. It is the chief monument of the late Fatamid period in Cairo.

THE MOSQUE OF AL-AQMAR 1125 A.D.

● This small structure, which measures 60 feet by 120 feet stands at the corner of Sharia an-Nahhasin and Sharia as-Sinnahnin. The most interesting part of it is the ornamental treatment of its outer façade. Its exterior of elaborately carved stone decorations stands in contrast to the outer simplicity of previous mosques. Its main arched entrance faces the qibla-wall in which the doorway is recessed with a pointed arch. The recession of the arch is treated in the form of a scallop-shell with an ornamental roundal in the centre. The lintel over the doorway is built of joggled-joints. It is the earliest example of the type of decoration that became the most striking feature of the Mamluke Architecture in the 15th century.

● Immediately above the lintel, on either side of the arch, is an ornamental stalactite composed of small pointed niches arranged in overhanging

rows. Above these stalactites are short niches with scallop-shell arches and below them are tall niches with similar arches. It is not known where stalactites were first used and consequently every writer has his own theory on the subject. Spiers thinks that this form of decoration originated in Persia, the land of brick-builders, and not in Egypt where stone had been the chief building material.

●The top of the façade is decorated with a band of carved Kufic inscriptions. On entering the main door one finds a room on either side and a stairway leading to the minaret which like the Mosque of Al-Juyushi is set over the main entrance. The entrance vestibule leads into the sahn which is surrounded by single arcades on three sides, and by a triple arcade on the fourth, forming the liwan. The arcades are made of Persian arches surmounted with bands of ornamental Kufic. They are supported on columns with Corinthian capitals of

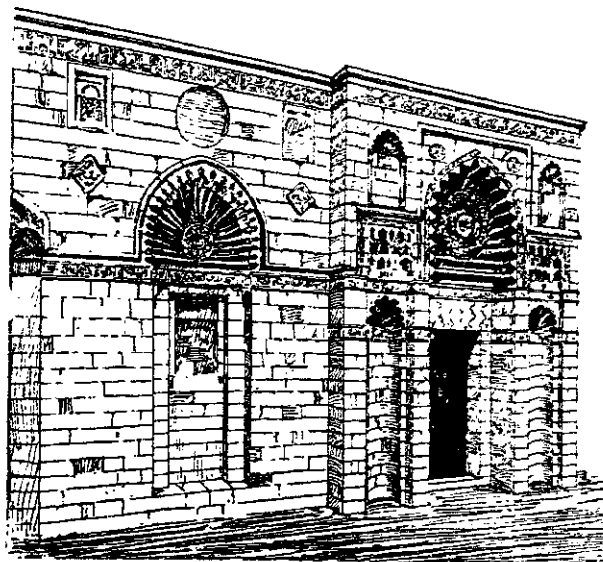


FIG. 32.

The Façade of the Mosque of Al-Aqmar. The top niches on either side of the main entrance have scallop-shell arches, a form which according to Spiers, originated in Persia.



FIG. 33.

General view of the Mosque of Amir Salih Talai. In the courtyard are seen stilted keel arches, often called Maxtilinear arches.

various fashions and have moulded bases. The spandrills of the arches are decorated with sunken rosettes and their imposts carry wooden tie-beams for strength. The present small minaret was added during the restoration of 1397 A.D.

THE MOSQUE OF AMIR TALAI 1160 A.D.

● After crucifying Al-Bata'ih, Khalifa Al-Amir fell a victim to 'Ismailian assassins in 1131 A.D. Since he had no male issue, he was succeeded by his cousin Al-Hafiz. The reign of Al-Hafiz and that of his successor Az-Zafir, is marred by the continual contests of rival ministers supported by factions in the army. The murder of Az-Zafir by his vazir Abbas, brought Al-Faiz, a child of four to the throne. The butchery of the Khalifa's relatives by Abbas roused such a storm of indignation, that he had to flee for safety towards Syria, but he was killed by the Franks on the way. During this tumult the people of Egypt and the

women of the palace implored Amir Talai ibn-Ruzzik, the Governor of Ushmuneyn, to come to the rescue. On entering Cairo in 1154 A.D. he set about establishing law and order and was given the title of Al-Malik as-Salih. In 1160 A.D. he built a mosque which stands outside the southern gate of Cairo. It was the last Fatamid piece of architecture in Egypt. In plan it is very similar to the Mosque Al-Aqmar but measures 135 ft. by 85 ft. The enclosure wall has three entrances, the main one being opposite to the qibla-wall and the other two in the side walls. Like the Mosques of Al-Juyushi and Al-Aqmar, its minaret stood over the main entrance, and on either side of the entrance vestibule there are rooms for the Mullah and the Muazzin.

●The sahn of this mosque is slightly bigger than that of Al-Aqmar and besides the liwan, it has only two colonnades. Both the liwan and the colonnades are made of keel arches

supported on fine marble columns, capitals and bases, taken from Christian churches. Above the capitals are wooden tie-beams used for strength, and on them rest keel arches made of bricks plastered inside and out with their spandrills decorated with niches. Immediately over the point of the arch is a decorative roundel and round each arch runs a band of Kufic in stucco. In the mosque, the architect has used a flat roof which is a return to the earlier method. The surrounding stone wall of the mosque, is dressed outwardly and plastered inwardly. Like the Dome of the Rock, the windows of this mosque are double. Externally they are made of decorative plaster grills while internally they are of fretted plaster work filled with coloured glass. Glass is also used for a mosaic decoration on the mihrab, on each side of which there are octagonal columns with bell-shaped capitals and bases. The pulpit in the mosque is made of beautiful arabesques, floral shapes in various patterns and geometrical panelling.

● Though Ibn Ruzzik restored and maintained order in Egypt, he could not exterminate the Franks. In July 1160 A.D. when the little Khalifa Al-Faiz died, he was succeeded by Al-Adid a child of nine who was the last of the Fatamid Khalifas. During his reign Ibn Ruzzik was murdered and his son Al-Adil Ruzzik was deposed and executed by Shawar the Arab Governor of Upper Egypt. Shawar himself was driven from Cairo by Dirgam and in 1163 A.D. within a year after the death of Ibn Ruzzik, the Christian King Amalric of Jerusalem, sacked Egypt. Al-Adid, the last Khalifa of the Fatamid dynasty, was a cipher and so the ministers ruled the country as they pleased. Rival ministers sought the help of the Seljuqs or the Christian rulers of Palestine, and thus brought about the down fall of the Fatamids.

THE RISE OF THE AYYUBITES AND THE FALL OF THE FATAMIDS IN EGYPT.

●The Ayyubite Dynasty was founded by Abu'l Muzaffar Salah ad-Dunya w'ad-Din Yusuf ibn Ayyub, the immortal Saladin of *The Talisman* by Sir Walter Scott. He was born in 1138 A.D. at Takrit in Mesopotamia. His father Ayyub (Job) was appointed the Governor of Baalbeck by Ata Beg Zangi, the ruler of Mosal. Ata Beg's growing power was becoming a formidable menace to the Crusaders who ruled Palestine. In 1154 A.D. Nur ud-Din son of Ata Beg Zangi, entered Damascus, where at his court Salah ud-Din, a quiet and retiring youth, spent the next ten years of his life in pursuit of knowledge. From 1163 to 71 A.D. is the period of constant struggle between the Seljuqs and the Crusaders for the possession of Egypt. Both invaded the country on more than one occasion, but ultimately it was the Seljuqs who made themselves

masters of Egypt.

●When Dirgam drove out Shawar from Egypt, he came to Nur ud-Din for support who gave him a strong force of Turkmans led by his famous general Shirkuh. Shirkuh's nephew Salah ud-Din, was also on his staff. With so strong a help Shawar defeated the Egyptians at Bilbay and soon became the master of Fustat. The defeat of Dirgam and his attempt to raise funds by using "wakf" brought about his unpopularity and death. When Shawar was restored to power he broke all promises with his benefactors which compelled Shirkuh to send Salah ud-Din to occupy Bilbay and the Eastern Provinces. Shawar in turn, appealed to Amalric, but even his help was of no avail; for in 1167 A.D., Shirkuh with the help of two thousand picked horsemen and his able nephew, routed the Egyptians and the forces of the Crusader king Amalric. Shirkuh installed Salah ud-Din as the Governor of Alexandria and taking half

of the army he left for the Upper Nile. This gave a chance to the Egyptians and the blood-thirsty Franks who laid siege to Alexandria. Salah ud-Din and his men boldly defended the city, but their provisions ran short and the citizens openly talked of surrender. Yet in spite of seventy-five days of hunger Salah ud-Din exhorted his men to action. At this very time Amalric heard that Shirkuh was laying siege to Cairo. This disheartened him so much that he arranged for peace, and both parties agreed to leave Egypt to the Egyptians and Alexandria was surrendered to Shawar. But it was not long before Amalric once again marched into Egypt. At the city of Bilbay he spared neither sex nor age, nor even babes at the breast says a Latin chronicler. The unexpected wholesale massacre of the citizens of the allied town, ranged the Egyptians on the side of Nur ud-Din whom they implored for help. The young Khalifa Al-Adid wrote to him himself for the same purpose. The loitering of the Crusaders

at Bilbay gave time to Shawar to prepare against the coming danger. He ordered Fustat to be fired so that it could not harbour the enemy. People burned their homes and ran towards Cairo for safety. Even mothers discarded their children in their hurry. Each one for himself was the raging cry. Soon the whole place was wrapped in flame and burned incessantly for fifty-four days reducing the beautiful suburb to heaps of ashes. The roof and the woodwork of the Mosque at Fustat was also reduced to cinders, but luckily the brickwork escaped utter ruin, and the entire mosque was renovated by Salah ud-Din when he became master of Egypt.

●The appeal of Khalifa Al-Adid and the people of Egypt brought Shirkuh and Salah ud-Din once again to their help. On December 17th, 1168 A.D. the third expedition began its march to Egypt. Needy and greedy Amalric, who was by now waiting before Cairo for more of Shawar's gold, was surprised and out-

generated by Shirkuh and was forced to retire to Palestine without offering battle. Shirkuh and Salah ud-Din with their Syrian troops entered Cairo amidst the cheering crowd. The Khalifa gave audience to Shirkuh and invested him with the robe of honour. The treacherous Shawar was beheaded by the order of the Khalifa and his place was offered to the gallant Shirkuh with the title of Al-Malik an-Nasir. Shirkuh enjoyed his position for only two months for he died suddenly on March 23rd 1169 A.D. and his place was given to his nephew Salah ud-Din. Two years later the death of Khalifa Al-Adid brought about the fall of the Shiah Khilafat and the formation of an independent monarchy in Egypt under Salah ud-Din.

● Before we study the monuments raised by the Ayyubite dynasty, it is advisable to know something about its founder and his rule, which though brief was the most glorious in the history of Muslim Egypt. Salah ud-Din

ruled for twenty-four years, out of which sixteen years were spent in campaigns in Syria, Mesopotamia and Palestine and only eight years in Cairo. In Egypt one of his important works was to abolish the Shiah heresy, while in Syria and Palestine he had to fight and exterminate the power of the Crusaders. To realise these objectives, he raised madressas, hospitals and citadels. Madressas were used for the teaching of the orthodox faith which in time was successful in establishing the Sunni doctrine in Egypt. Madressas in fact became the Sunni counterpart of the Shiah's "Dar al-Hikma" or the House of Science. As Al-Hakim was the innovator of "Dar al-Hikma" in Egypt, similarly the Seljuq Sultan Malik Shah was the creator of madressas in his kingdom, for he realised that the best method of combating any heretical doctrine was through the channel of education. After him Salah ud-Din effectively employed the same method. From 1171-82 A.D., the time during which Salah ud-Din resided in

Egypt, he left his mark in the city in the form of madressas, hospitals and citadels.

MADRESSAS, 1176 A.D.

● Salah ud-Din built the first madressa in Cairo by the Tomb of Imam Ash-Shafi, which lies to the south of the city of Cairo. It has long ceased to exist even as ruins. Ibn Zubair who saw this madressa in 1183 A.D. describes it in a way which is of little interest for a student of architecture. Since Salah ud-Din himself studied at similar institutions built by Nur ud-Din at Damascus and Aleppo, it is probable that those madressas served him as examples for his madressas in Cairo. The earliest of these buildings, of which any remains still exist, are found in Syria. These madressas were provided with a place for prayer, rooms for teaching and living quarters for the students. The typical madressa plan consists of a central square open court or sahn with large covered portions spanned by pointed arches on all sides of it forming a

simple Greek cross. Whether this form was evolved in the West or East by Nur ud-Din himself is not known. In the 14th and 15th century, this embryo plan was developed into magnificent forms. Another madressa built by Salah ud-Din in Cairo adjoins the mosque where the head of Martyr Hussain was buried. Besides these he built three more colleges in different parts of the city. These madressas produced fruitful results and after the middle of the 13th century, when Salah ud-Din successfully overthrew the heretics, they became mosques and were furnished with minarets.

MARISTANS OR HOSPITALS

● Another type of building which Salah ud-Din introduced into Egypt was "Maristan" or the Hospital. Ibn Zubair's description of the first hospital founded by Salah ud-Din in Cairo will throw some light on the arrangement of Muslim hospitals. There was an able

Tabeeb in charge of each hospital who would prescribe and dispense medicine for the patients free of charge. Each hospital was divided into wards for the males, females and lunatics, properly furnished with bed and bedding. Free food was provided for all the patients. Each ward had a few people who inquired after the health of the patient and helped them in every way. These wards were built around a spacious court which was made into a garden. It is said that the Sultan himself visited and inspected the state of these various institutions.

CITADELS, 1176 A.D.

● The great citadel or “Qalat al-Jabal” or the Castle of the Mountain as the Arabs call it, still dominates the town. It is another important monument raised by Salah ud-Din. It was commenced about 1176 A.D. and in spite of alterations and additions, preserves its original appearance on the side facing

the Muquttam Hills. The southern wall which was to include the ruins of the recently destroyed Fustat, remained unfinished, though the northern part was completed. It is believed that the Burg az-Zafer excavated from mounds of refuse was the bastion of that wall. According to some writers, the construction of the citadel shows the French influence brought in by the Crusaders: although I fail to see it. To me the shape or the construction of the citadel with its circular bastions look no more French than the enclosing wall of the Mosque of Samara built hundreds of years before the Crusades were ever thought of. Most of the architectural works of Salah ud-Din were carried out by his general and right-hand man the eunuch Qaraqush, the Black Eagle, who also superintended the digging of the "Well of Joseph" by Frankish prisoners. Another interesting relic of Salah ud-Din is the Bab al-Mudarrag or the Gate of Steps, built in 1182 A.D. It is now discarded and is very difficult to find. On

it is recorded the name of the Sultan, his faithful servant Qaraqush and his brother, the heir-apparent, Al-Adil Seyf ud-Din. The inscription instead of being in stiff angular Kufic which had been the favourite of the Fatamids is in rounded and cursive Naskhi. Another example of this form of script of Salah ud-Din's period is at the Church of St. Anne, Jerusalem.

● In 1183 A.D. Salah ud-Din left Cairo and spent the rest of his life fighting with Crusaders in Syria and Palestine with Damascus as his headquarters. He defeated the Crusaders near the sea of Galilee and captured Jerusalem from them in 1187 A.D. This is the reason why his important architectural works which are fortresses, bridges, stone vaulted bazaars, street fountains, mosques, madressas and other public buildings, are found in Jerusalem and Damascus. The mosques of his period are mainly churches built by the Crusaders, converted to suit the requirements of the Muslims. The best known examples of work are the great

mosques at Ramlah and Gaza in Egypt the latter originally being the Church of St. John, built in Norman-Sicilian style. In this style the simple-pointed and horse-shoe arches, engaged or detached columns with capitals of stiff foliage, strike as familiar motives to a student of Islamic Architecture. This is due to the fact that this style is the result of Gothic art reared during its infancy under the care of the Saracenic art of Sicily. Except for the churches that were converted into mosques, the influence of the Crusaders hardly appears in the religious buildings of Salah ud-Din and his immediate successors, the only exception being the porch of the Mosque of Al-Aqsa at Jerusalem.

●The history of the Holy War of 1187-1192 A.D. is the record of one conquest after another by Salah ud-Din Ayyubi and the crushing defeat of the Crusaders. In other words, on one hand it is the manifestation of the colossal energy of a single man of not so robust health, against the combined forces of all



FIG. 34.
A Madressa in the heart of Cairo.



FIG. 35.
The Hospital of Qalawun.

Europe. On the other hand, it is an evidence of the cruelties and barbarism of those who gave vent to the lowest instincts of mankind under the garb of a religious cause. It also speaks of the combined humiliation and degradation of the kings and knights with hearts of lions and heads of foxes. In the siege and counter-siege, in the negotiation for peace before the capitulation of the Crusaders and ultimately in the victory of Salah ud-Din, we see that the cold-blooded butchery of the Saracen prisoners by King Richard was magnanimously pardoned by the conqueror. Such was the champion of Islam, who both by friends and foes was rightly called the beau-ideal of chivalry in an era when treachery and deceit were the fashion of the age.

● The treaty of 1192 A.D. left only the coastal strip of territory, from Tyre to Jaffa, in the hands of the Crusaders, thus making Salah ud-Din the undisputed monarch of the land that stretched from Kurdistan to the Libiyan

desert. After this he made a tour of his new domain to see if its fortifications were in order and if his new subjects were contented. It is regrettable that though this noble general lived to see the triumph of his life's ambition—the unity of Islam—he did not live long to enjoy this peace, for the strain of long campaigns and a fever brought him to his headquarters where he died in 1193 A.D. and was buried in a “qubbah” or a domed chamber near the great Mosque of the Ummayyads in Damascus.

●Having lost Palestine, the Crusaders made Damietta their objective. The successors of Salah ud-Din, though enlightened men of culture, found little time to indulge in the pursuits of peace. Between 1193-1250 A.D. was a period of general distress which betook Egypt and along with it there was also constant fighting with the Crusaders. It is for this reason that there is a comparative absence of monuments of any importance in Cairo of this period. The only

building of any note belonging to this age is the Madressa of Salih Najm ud-Din Ayyub, the grandson of Salah ud-Din from his only daughter Munissa and the son of his brother Adil Seyf ud-Din. Salih Najm ud-Din, the last of the Ayyubite Sultans, constructed this madressa in 1241-44 A.D and it is situated in the Sharia al-Jawhariyyah. It consisted of two colleges, the south and the north madressa divided by a corridor. Though it has suffered a great deal through neglect, it is still very interesting to students on account of being a link between the Fatamid Architecture and that of the Mamlukes of the 14th century. Except for the striking minaret and some part of the façade, the rest of the structure is in a dilapidated form. The façade is decorated with beautiful motives rendered in stone. The minaret is in three stages, the lowest stage which is square is decorated with tall windows. This square substructure is made into an octagon which is crowned by a ribbed

dome resembling a pepper pot and standing on tiers of stalactites which mask the transition from the octagon to the circle. This type of minaret making was introduced into Egypt towards the end of the Fatamid period from Persia or Mesopotamia. After the death of Salih Ayyub, in 1250 A.D., his son Turan Shah was made Sultan. His violence and debauchery and his insolence to his step-mother, disgusted the Mamlukes who decided to get rid of him. The dynasty founded by the great Salah ud-Din Ayyubi which lasted only seventy years, came to an end with the death of Turan Shah. Thus power came into the hands of Shajrat ad-Durr "tree of pearls", the widow of the late Sultan Salih Najm ud-Din.

● She built the Tomb of Al-Salih Najm ud-Din Ayyub which stands at the north end of his madressa. This interesting and attractive little monument is in a better state of preservation than the adjoining college. The funeral chamber still shows some notable feature. Its

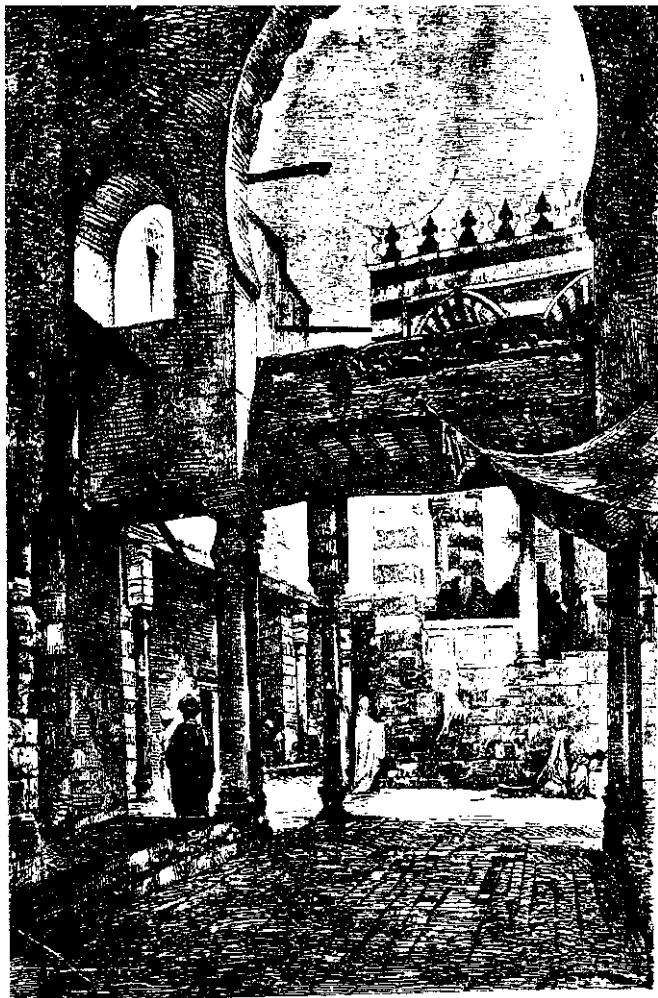


FIG. 36.
The Interior of the Hospital of Qalawun.

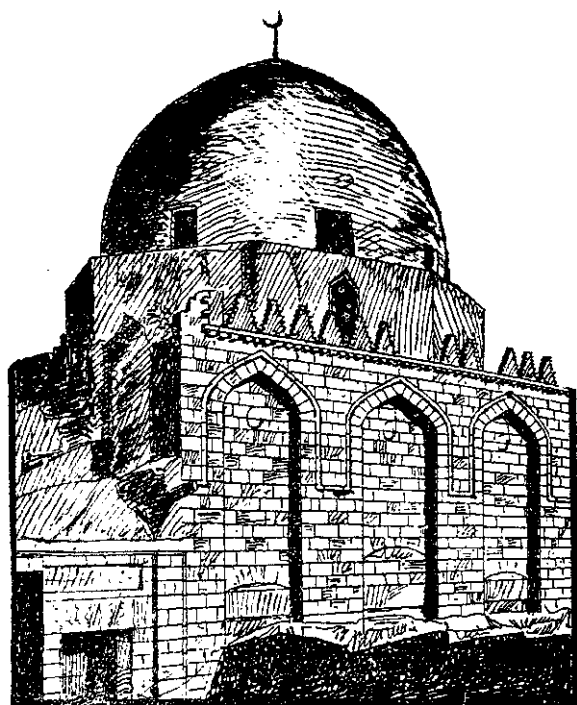


FIG. 37.

The Tomb of Salih Najm ud-Din Ayyub built by his widow Shajrat ad-Durr, next to his Madressa in Suq an-Nahhasin.

dome is almost intact and there still remains a good deal of the original pierced plaster windows with a few fragments of glass. The mihrab is now robbed of all decorations except two marble columns. The cenotaph is cased in beautifully carved wood in Ayyubite style, the small panels bear a charming motive in high relief and the encircling inscriptions stand out boldly against an arabesque background.

In spite of the many defeats at the hand of Salah ud-Din and his successors, the Crusaders continued to be an obstacle in the way of Egypt and the great stone-building territories like Armenia and Anatolia which lie to the north of it. Ultimately it was through the ambition and energy of a former Mamluke (slave) of Sultan Salih Ayyub that this obstruction was completely removed and with it came the supremacy of stone construction in Egypt at the expense of brick and plaster work which was completely ousted.

MAMLUKE ARCHITECTURE

●The word Mamluke means “owned” or “belonging to”. In Egypt this name was given to Turkish white slaves who were bought and used as bodyguards by sultans. Under Salih Najm ud-Din, the system of a “halqa” or bodyguard was highly perfected. He built a castle for them on the Island of Roda on the Nile, from which they derived their name of “Bahri Mamlukes”. Though Salih’s widow, Shajrat ad Durr, who was a slave, now ruled Egypt with the help of Amir Aybek, yet the real founder of the Mamluke Empire was Baybers. The conflict between Shajrat ad-Durr and her consort Aybek ended in his death at her hands and ultimately her own at the hands of Aybek’s son from his first wife who was divorced at her instigation. Aybek’s son, Al-Malik al-Mansur Ali, who was set on the vacant throne, was a frivolous youth and not at all the right person for the crisis, so Kutuz, formerly Aybek’s deputy,

ascended the throne. The greatest danger at this period which threatened the whole Muslim world, was the march of the Mongols under Hulaku Khan. In 1258 A.D. they took Baghdad and murdered Khalifa Motasim. One of Motasim's uncle found an asylum in Egypt and established a spiritual power which lasted until 1577 A.D.

DESTRUCTION OF BAGHDAD

● Benjamin Tudela, a Jewish traveller from Navarre who visited Baghdad during the Khilafat of Mostanjid in 1164 A.D. gives us a glimpse of the capital before its destruction by the Mongols. He writes that the Khalifa who was a cultured and just man, gave both the Jews and the Christians great freedom in all affairs, and patronized artists, poets and philosophers, who flocked to his court. He himself was a scholar and a craftsman and earned his living by making articles of use and decoration.

He was very much concerned about the health of his people and had provided them with sixty hospitals for various diseases and several lunatic asylums. The city of Baghdad was surrounded with gardens and orchards with rich fruits and palm trees, where merchants came from all directions. Such was the prosperity of Baghdad when the Mongols, like an avalanche swept over the centres of Muslim culture. Where once stood beautiful hospitals, madrassahs, libraries, mosques and gardens, there was nothing but ruins and desolation. It is related of Herat, the beautiful city of 100,000 people, that when the Mongol army had marched out of it a miserable remnant of forty people crept out of their hiding places and gazed horror-stricken over the ruins of their city. Similar was the fate of Baghdad. Its beautiful mosques were used as stables by the Mongols. Valuable manuscripts, books of science, art and philosophy and illuminated Qurans were used as litter. Ibn al-Athar describes in a very touching manner

the inroads of the Mongols into Islamic countries. "The description of these events is so terrible and awe-inspiring, and such calamities as wholesale massacres, burning, looting and rapine are so dreadful, that the slaughter that Nebuchadnezzar wrought among the children of Israel and the destruction of the Temple that Jews still mourn is but a trifling event." Those who lived to see this havoc and desolation perhaps rightly deemed that the end of Islam had come. Undoubtedly its cultural manifestations were brought down to ashes, but from these very ashes Islam was to rise again to its former grandeur. And through the hands of the very people who rang its death-knell it was to spread like the Toofan Arum-Rum.

● In 1260 A.D. the Mongols conquered all Syria and pushed on to Gaza destroying everything that came in their way. Kutuz sent Baybars who was able to drive the Mongol garrison out of

Gaza. Though Kutuz ruled ably, the tenure of his power was curtailed by a conspiracy of the Mamluke Amirs, who were ever ready to snatch away power from each other. On the assassination of Kutuz, Baybers assumed power under the title of As-Sultan al-Malik az-Zahir Ruken ad-Dunya Wad-Din Baybers al-Bundukdari as-Salihi. He reigned from 1260-1277 A.D. Among his many achievements was the suppression of the Ismailian assassins who were more or less allied to the Christian powers.

THE MOSQUE OF BAYBERS I

●The most important building raised by Baybers is the Mosque Jami' which is built outside the medieval walls of Cairo, lying on the main road to Abbasiyyah and Heliopolis. In appearance it is more like a fortress than a mosque, for it is deprived of its dome and minaret and also because it is below the present road level. From the time of Napoleon's

occupation till the last Great War, it had been used as a bakery, a meat depôt and for various other military purposes. Locally it is known as the Old Slave Market. Though built in 1266-69 A.D. this Mosque of Baybers presents many characteristics of the earlier congregational mosques like those of Al-Hakim and Ibn-Tulun. It is square in plan with the main liwan about six aisles deep and the other three liwanat only two aisles deep. The main liwan is cut by a central transept. Resting on the mihrab wall and immediately above it, was a dome which no longer exists. The external walls of the mosque were originally crowned by toothed battlements of Mesopotamian type like those in the sahn of Al-Azhar. The façade which is of dressed stone, is decorated with beautiful mouldings of fine workmanship. It has three porched entrances which have sunken niches resembling those which are found on the façade of Al-Aqmar.

THE MADRESSA AND MAUSOLEUM OF QALAWUN, 1284 A.D.

● Baybers' son, Nasir ud-Din, from the daughter of Baraka Khan of the Golden Horde, was a pleasure-loving, gay and insolent youth of nineteen. His treatment of the old Amirs of his father brought about his imprisonment. In his place Badr ud-Din Selamish, a boy of seven, was placed on the throne with Qalawun (Duck) as the Atabeg or Regent. After three and a half months, Qalawun, one of Bayber's generals, quietly deposed the child and became Sultan of Egypt, assuming the title of Al-Malik al-Mansur Seyf ud-Din Qalawun al-Elfi as-Salahi. He founded a princely house which lasted a hundred years and also extended the Egyptian Empire. In 1284-85 A.D. he constructed a group of buildings consisting of a hospital, a madressa and his own mausoleum, which is the best preserved of them all. This building is the product of divers influences such as Moorish, Gothic and Seljuq or Northern



FIG. 38.
Interior of the Madressa-Mausoleum of Qalawun.

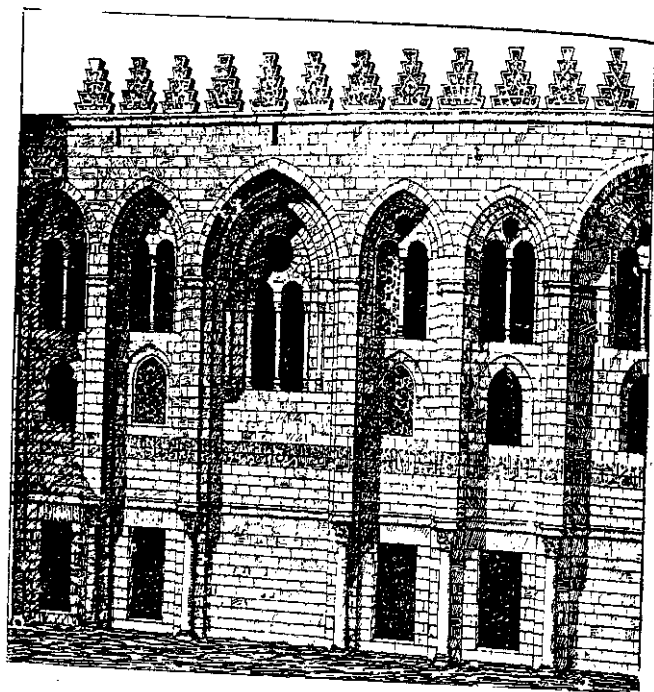


FIG. 39.

Outer Façade of the Madressa-Mausoleum of Qalawun.
Above the doors is a band of inscription in Naskh which
runs across the whole façade.

Syrian. In plan this group is most interesting. The dome-carrying octagon is set within a square hall which is about sixty feet wide and enclosed by walls about forty feet high. Unlike the early mosques, its external walls with chequer patterns of red and white stone are undoubtedly most exquisite. About 15 feet from the street level a band of Quranic inscriptions in Naskh runs across the whole façade, which is crowned by toothed battlements decorated with a geometrical fret-work-pattern. The Gothic influence in the façade shows itself in the triple rows of window openings. The openings at the floor level are spanned by flat lintels and are fixed between columns of the Roman period on which rest high stilted arches carrying the other two rows of windows. The middle row of windows are small with pointed arches filled with geometrical tracery in beautiful designs. The top row of windows are grouped in pairs with a column in between. The windows of the top row are round headed and have a

roundel for light placed above the column.

●Through the efforts of the *Comite de Conservation des Monuments de l'art Arabe*, its interior is made as beautiful as it was on the day of its completion. Four great square piers and four monolithic columns of red granite with bases and capitals of Corinthian form, support eight arches of slightly horse-shoe type, forming the inner octagon over the tomb. The octagon is formed by arranging alternately two columns and two piers. As far as the beauty of its interior is concerned, this mosque-mausoleum has no equal either in Cairo, Damascus, Aleppo or India. It can only be compared to the Alhambra or the Dome of the Rock at Jerusalem. The space between the octagon and the outer walls is roofed with timber beneath which is a coffered ceiling. The octagonal drum rises much higher than the flat roof. In it are eight groups of coupled-windows similar to those of the façade. The dome along with the drum are the

only parts made of bricks, the rest being entirely of stone. This dome is of a much later date, for the original collapsed a long while ago.

●The mihrab is lined with turquoise and marble and the entire space between the marble floor and the drum is exquisitely and harmoniously coloured and gilded. On this superb decoration, the light streams in from the stained glass windows and adds considerably to the charm and atmosphere of this sumptuous interior. The fame and riches of Baybers and Qalawun attracted craftsmen from far and wide. Syria, Anatolia, Spain and Northern Africa, all had their representatives in that great metropole of Cairo. The simplicity of the Qalawun minaret and the elimination of the crowded stalactites shows that Qalawun was greatly attracted by the architecture of Northern Africa. This minaret is in three stories of which the lower and the middle are square, while the top one is

circular. The lower story is decorated with round-headed windows, the middle one with horse-shoe arches and the top one has blind arcades and interlacing patterns of Moorish type. In the interior, the lower part of the walls are covered with a dado of marble and mother-of-pearl and the upper part is plastered. The arches are richly decorated with arabesques moulded in plaster and the arches of the octagon have a decorated band terminating in a loop at their apex. This loop form of decoration was first used in Egypt in the Mosque of Al-Juyushi in 1085 A.D. but it most likely came from Armenia, for the earliest known example of this form of decoration occurs over the door of the Madressa of the Indje Minareli at Konia, built in 1051 A.D. The tomb under the dome is surrounded by a wooden screen or maqsura of turned wood set in a frame. On one side of this mausoleum is a little open forecourt which forms quite an attractive asset to the edifice.

●The mausoleum is separated from the madressa by only a corridor. This part of the building has also gone through a very careful renovation, and as far as the beauty of craftsmanship is concerned, it is in no way inferior to the mausoleum. The madressa is composed of two liwanat which are built on either side of an open court which has a fountain for ablutions. On two sides of this court are rooms built for the students. The smaller liwan is barrel-vaulted, and the other liwan which is wider than the court, has two arcades dividing the space into three aisles. The middle aisle is built on columns taken from older buildings. Since the columns of the arcade were rather small, the height was achieved by setting cubes of masonry on the capitals of these columns. On top of these cubes are laid blocks of stone which have wooden dosserets fixed in the masonry imposts raised above them. These imposts are capped by a moulding and crowned by pointed horse-shoe arches which carry the present

flat ceiling. Originally the ceiling of this central aisle was semi-circular and made of timber. On top of each arch there is a roundel for ventilation and the arch and the roundel are pulled together by a band of loop-decoration. These arches are strengthened by wooden beams.

MARISTAN OF QALAWUN 1282 A.D.

●The third building of this group is the Maristan (hospital) of Sultan Qalawun. There are a number of stories concerning the building of this hospital. According to Maqrizi, Qalawun fell terribly ill in Syria and was much relieved by the drugs and medical attention of some Tabeeb (physician) from the dispensary founded by Nasr ud-Din at Damascus. This impressed him so much that he decided to build a similar institution in Cairo. The site he chose was that of a former Fatimid palace, "Qasr ez-Zumurrud." The building material was brought from the pyramids and the citadel

of Salih Najm ud-Din at Roda. This hospital was very similar to that of Salah ud-Din. In it there were wards for every known disease, a regular medical staff, lecture rooms, laboratories, a dispensary, baths, kitchens and every appliance then known. It is said that for some ailments music was provided as a cure. To-day very little of this hospital remains to tell of its past grandeur.

●Qalawun's death in 1290 A.D. brought his son Khalil to the throne. Khalil, though a very good soldier, had a most despicable character. During his reign, Akka in Palestine and many other cities were captured from the Crusaders. But he murdered and imprisoned most of the trusted Amirs of his father. He ruled for three years after which he was murdered by some Amirs who forthwith placed his younger brother, a boy of nine, upon the throne. Nasir ud-Din ruled for the next fifty years with two short interruptions. At first he was deposed by his regent Amir Katbogha, and then he abdicated

by his own free will and the throne was taken by Baybers al-Gashenkar. Two years later when he repented and returned, his successor Baybers, fled from Cairo and the Mamlukes willingly reinstated Nasir ud-Din and he ruled for thirty-three years more. His reign is characterised by a very high standard of Islamic Art. Some thirty mosques were raised during his time out of which about twenty are still standing.

THE MADRESSA-MAUSOLEUM OF AN-NASIR 1295 A.D.

● One of the earliest buildings raised by An-Nasir is the madressa-mausoleum which is dated somewhere between 1295-1304 A.D. This edifice is situated between the two gorgeous tomb-mosques of Qalawun and Barquq and hence it appears insignificant by comparison. The dome of the mosque, its primitive stalactite-pendentives, stucco ornaments, the unusual minarets and the

Gothic portal facing the street, are among the most interesting features of this building. The Gothic doorway was taken from the Crusader's Church of St. John at Akka (Acre) captured by the Muslims in 1292 A.D. and brought to Cairo as a trophy. It is rather doubtful whether this solitary example of Gothic Architecture influenced the Architecture of the Mamlukes in any serious manner.

THE MADRESSA OF SHEIKH ZAYN UD-DIN YUSUF 1298 A.D.

●The founder of this very beautiful tomb-madressa was Sheikh Zayn ud-Din Yusuf who was a Sufi by inclination. According to his funeral inscription he was a descendant of one of those two members of the Ummayyad family who escaped the sword of As-Saffa, the first Abbaside Khalifa. This building which is situated at the south end of the city of Cairo is dated 1298 A.D. Since it is much lower than the street level,

one descends into the sunken court and through a vaulted porch enters the madressa. Around the sahn there are four liwans making the madressa cruciform in plan. Around the four liwans at a height of about ten feet from the ground, runs a band of most beautiful stucco inscription in Naskhi on a floral background. A similar type of lace-work is to be seen on the mihrab. The domed part of the building still shows traces of destruction by the fire that occurred in 1907 A.D. and destroyed the most beautiful Ayyubite wood carving, a wooden cenotaph (Tabut), a most charming painted wooden frieze, coloured glass windows, stucco decorations and mosaics. The dome luckily escaped destruction and stands intact to this day. This ribbed dome of graceful proportions, has a band of superb inscription encircling its base and its interior is much more ornamented than is usual.

THE MOSQUE OF AN-NASIR AT CITADEL 1318 A.D.

●The most important monument among those built during the reign of Nasir ud-Din is the Mosque of the Citadel. Its exterior is rather bare and uninteresting except for a line of pointed window-openings near the top of the walls. The walls are proportionately higher than their length and at the south and west have lofty porches with stalactite decorations and two minarets of the Tartar type with their tops decorated with glazed tiles of emerald green colour. The Tartar characteristics in the building were due to the influence of Nasir ud-Din's Mongolian mother and other importations that she brought to the court of Qalawun.

●The use of this mosque as a store house during the World War 1914-18 A.D. and the negligence and vandalism of the authorities, have accelerated

the decay of this unique monument of the most attractive period in Cairo. In contrast to the severe simplicity of its exterior which is in keeping with the military surroundings, the interior of this mosque is very beautifully ornamented. The main liwan which is four aisles deep and the three liwanat which are only two aisles deep, present around the sahn, a forest of fine columns. Since the columns are not equal, they are brought to one level by fixing them on bases of different heights. Their capitals which belong to the late Roman period, carry pointed horse-shoe arches of black and white marble raised on impost blocks. Above the arcades run a row of pointed windows, two over each arch. On top of the arches there is a band of calligraphic inscription in cursive script that runs around the walls. The walls are finished with stone capping on which is built a toothed parapet. The dome over the mihrab is supported by ten superb Ptolemic granite shafts. The original dome fell in 1468



FIG. 40.

The Interior of the Mosque of An-Nasir ibn Qalawun at Citadel. The picture shows two of the superb granite columns from which spring arches of black and white marble.

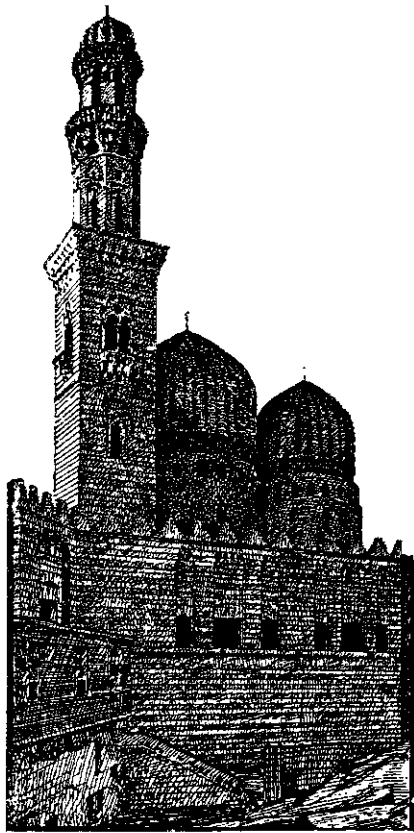


FIG. 41.

The Madressa of Amir Selar and Sangar al-Gawali built on a hill which lies not far from the Mosque of Ibn Tulun.

A.D. and was rebuilt by the reigning Sultan. To-day nothing remains of it but the wooden stalactite pendentives forming the transition from the square substructure to the octagon of the dome. Even though the interior is in a ruinous condition, it still shows traces of its former rich decoration.

AMIR SELAR AND BAYBERS AL-GESHENKIR

●During the early youth of An-Nasir, the two Amirs who really governed the country were Baybers al-Geshenkir (The Taster) and Amir Selar. The latter was of Tartar origin while the former was a Circassian Mamluke. For a long time these two Amirs remained inseparable in public acts and ceremonies and used their wealth for building and charitable purposes. It is related that when the great earthquake of 1302 A.D. wrecked the city of Cairo, Baybers undertook the restoration of the Fatamid Mosque

of Al-Hakim and of many other places. When the young Sultan who was kept in fetters, abdicated in 1307 A.D., Baybars usurped the throne and retained Amir Selar as Viceroy. But Baybars was hated by the people who hoped that An-Nasir might return to them. When An-Nasir did return, Baybars fled towards Assuan, but he was brought back, put in prison and strangled the next day before An-Nasir. His friend the Amir obtained permission to bury him in the "Khanqa", the mausoleum that Baybars had built for himself. This mausoleum I have described on page 164. Amir Selar had amassed by doubtful means, an enormous fortune which he used in charity and hence was much preferred to Baybars by the people. Sangar al-Gawali was a great friend of Amir Selar who was made instrumental in betraying him to An-Nasir. The two friends are buried in tombs beneath twin domes of their Madressa. Sangar supervised the completion of this edifice and adorned his mausoleum in an exquisite manner,

and it forms the most important part of the building.

THE MADRESSA OF AMIR SELAR AND SANGAR AL-GAWALI.

●The madressa-mausoleum is built on a hill which lies not far from the Mosque of Ibn Tulun. Because of its situation it is rather irregular in plan. When seen from the north side its façade appears most interesting and unique in style. The twin stilted and ribbed domes along with a tall minaret make this edifice strange and charming. The walls of the main façade are made externally of dressed stone and internally plastered. From the street to the floor level, the façade is very plain, while above it, the wall is pierced with tall windows set in shallow recesses divided by piers, which is an innovation of the architect of Qalawun's Mausoleum. The top of the wall is crowned with a toothed battlement. Since the madressa is higher

than the street level, it is reached by two flights of steps. The northern façade has an open stairway which leads to a vaulted vestibule partly cut out of the rock. The tombs are reached by a covered stone stairway built under a massive wall and lighted by an opening in the roof. At the top of the stairs the square landing has three doors. One leads to the liwan, the other to the minaret and the third through a vaulted corridor to the three tombs. This corridor is lighted by large bays, screened by the most exquisite carved stone work. The tombs of the Amirs Selar and Sangar al-Gawali lie beneath the twin domes, while the third tomb which belongs to some unknown Sheikh, lies to one side under the third small cupola. The sahn still shows remains of a very charming inscription in cursive from the Holy Quran and odd square windows in carved stone lace-work similar to those of the bays in the corridor. The yard adjoining the corridor has also a magnificent stucco inscription that runs

along a wall similar to that which goes around the base of the dome and on the minaret. The minaret stands close to the entrance door. Its square lower portion which is of stone has windows for light and ventilation. The two upper storeys which are made of plastered brick work are octagonal in plan. At the end of each portion there are stalactites and its top is crowned by a small ribbed cupola. This minaret was modelled after the minaret of Qalawun. Beside it are the twin stilted and ribbed domes which like the octagonal storeys of the minaret are made of bricks. In them the transition from the square substructure to the circle of the dome is accomplished without the intermediary octagonal phase. At the lower portions of the domes, below the bands of inscriptions, are the coloured glass windows which throw a very soft light upon the cool interior of the mausoleum. In this mausoleum there is an attempt to combine the two distinct methods of building that existed in Egypt,

that is, stone building and brick building, a system that was destined to endure for another generation.

THE KHANQA OF BAYBERS AL-GASHENKIR, 1306 A.D.

●The “Khanqa” or the Convent-Tomb of Baybers stands near the Bab an-Nasr and is dated about 1306 A.D. This is the second monastery built in Cairo, the first being that of Salah ud-Din which has long since disappeared. It was intended for the Sufi dervishes and their cells occupy most of the space. Baybers endowed this monastery with a “waqf” for the Sufi community. His own marble tomb which lies under a cupola stands out amid the surrounding darkness of the funeral chamber. The dome rests on stalactites framing pierced-plaster windows of exquisite tracery. Near this dome stands the Tartar type of minaret with its square lower portion and circular upper portion. The storeys are marked by pro-

jecting balconies made of stalactites and at the top the minaret is crowned by a ribbed cupola. At the back of the mausoleum lies the madressa, with an open sahn and liwanat, which is approached from the street by a passage. The portal of the monument is the most unique in Cairo. Its round arch is built of torus mouldings similar to those used in the buildings of the Crusaders in Syria. Slightly below the base of the arch runs an inscription in cursive carved in stone.

● Besides Baybers, Amir Selar and Sangar al-Gawali, other Amirs who raised beautiful mosques which are still standing from the reign of Al-Nasir, are Aqsunkur, Sheikhu, Qusun and Al-Mardani. The buildings of this period are among the finest produced in the history of Muslim Egypt. Some of the furniture and other objects of interior decoration from the Sultan's palace and from his mosques which are preserved in the Cairo Museum show that the minor arts were

never cultivated in greater perfection in Egypt than at this time, and the Sultan himself led the way in these matters of æsthetics. It is estimated that at one time he spent 8,000 dirhems (£300) a day on building. When he died in 1341 A.D. at the age of fifty-eight, he left no successor capable of carrying on his work. Twelve of his descendants ascended the throne in quick succession. Hassan, the seventh of An-Nasir's eight sons, kept the throne for four years but was then deposed and thrown into a dungeon. His younger brother who was made the Sultan by the Amirs was also dethroned by intrigues and was cast into the same dungeon from which Hassan was released. Hassan ruled as Sultan for another seven years when he was again overthrown and this time put to death.



FIG. 42.

The Main Entrance of the Khanqa of Baybars al-Gashenkir. The portal with its arch built of torus moulding appears extremely modern.

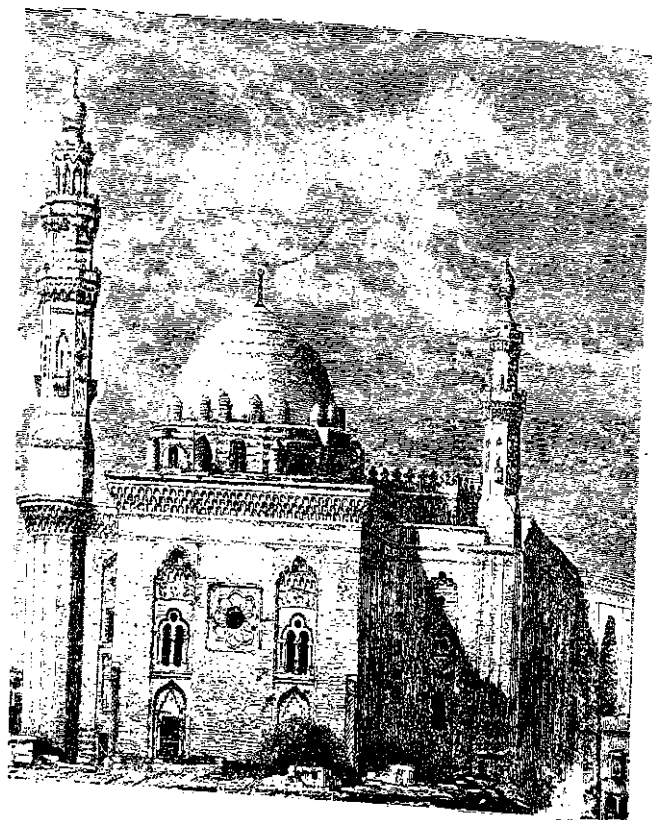


FIG. 43.

An outer view of the Mosque-Mausoleum of Sultan Hassan which stands below the Citadel. Its Turkish dome and the smaller minaret are later additions.

THE MOSQUE OF SULTAN HASSAN, 1350 A.D.

●The Mosque of Sultan Hassan which stands immediately below the citadel was built in 1350 A.D. This most charming monument of Mamluke Architecture is universally admired and constantly frequented by tourists. Its grandiose proportions, majestic beauty, the striking façade that faces Mohammed Ali's Street, elegant portal, and charming stalactite-cornices, make this edifice a thing of great magnanimity and beauty. The fortress-like appearance of the mosque is due to its colossal height and the lack of large windows to break the monotony of the great flat wall surfaces which are over 500 feet in length and 113 feet in height. As compared to the magnificent edifice, its Turkish dome and the smaller minaret are not only incongruous but also un-gainly. It is believed that the original cupola of the mosque fell in 1659 A.D. and was rebuilt by one of the Ottoman

governors. The loftier of the two minarets is the highest in Cairo and measures about 280 feet. Due to some fault in the construction, it fell and was rebuilt in 1671 A.D. and at the same time the smaller minaret was added to the mosque. The portal which is reached by a flight of steps rises above the street to a height of 65 feet and is crowned with a vaulted semi-dome carried on a tier of stalactite-pendentives.

●The mosque is cruciform in plan with a spacious sahn about a hundred feet square richly paved with marble and has two domed fountains of Turkish design for ablutions. The cupola of the largest fountain is shaped like a globe, coloured blue and surrounded by a broad belt of letters in gold. It rests upon an octagonal base which in turn is supported on eight columns. Each side of this octagon has a double round-headed window with a roundel on top. On each side of the sahn there is an impressive

pointed arch which leads into a liwan. According to Al-Maqrizi, the size of the great liwan is larger than the arcade of Chosroes at Medain (Ctesephon) in Iraq, and the span of the archway is more than sixty feet. He mentions that the eunuch Muqbal once told him that he heard the Sultan say: "The expense of the centering for the arch of the great liwan was one hundred thousand dirhems." Unlike the usual liwan made of colonnades, these four liwans which surround the court are really lofty halls with arcades of pointed horse-shoe arches forming the Greek Cross. The walls of the court are crowned by battlements of simple lilyform. The austere simplicity of the interior is indeed very impressive. Its main court which in no way intercepts the light of day and the four liwans around it, are majestic, solemn and harmonious. Round the eastern liwan runs a deep stucco frieze which is perhaps the finest example of ornamental design, for the infinite play and variety of lines,

the beautiful and flowing forms of the recurring design and the exquisitely modulated calligraphic text from the Holy Quran are æsthetically most satisfying.

●The angles between the four liwans are occupied by the buildings of the four schools of thought in Islam, Hanafi, Shafai, Malaki, and Hambali. In the south-east liwan there is a beautiful mihrab and a handsome mimbar or pulpit from which Sultan Hassan used to address "Khutba" (the friday sermon) to his people. From this liwan two splendid bronze doors with gold encrustations lead into a funeral chamber of superb proportions crowned with a cupola. The transition from the square substructure to the octagon of the dome is accomplished by honeycomb-stalactite-pendentives. It also has a mihrab of marble mosaic and its walls are faced with rich marble panels. The tomb of the Sultan is quite plain and is surrounded by a wooden lattice. The lower portion of

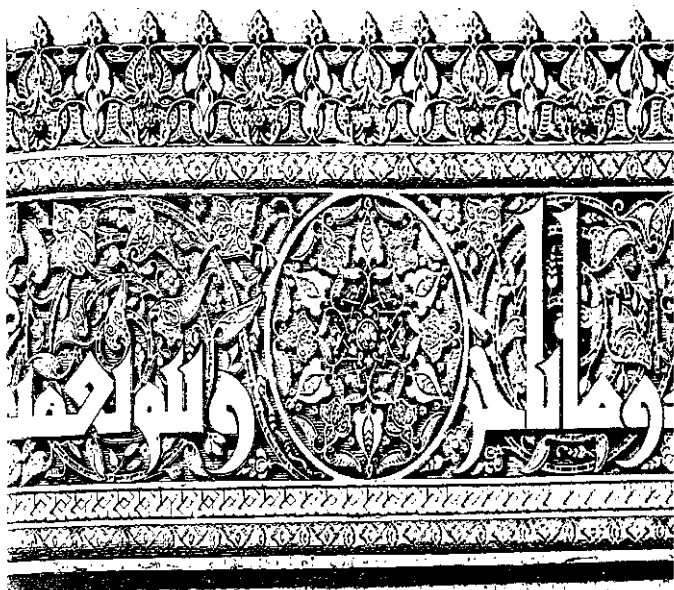


FIG. 44.
Decoration from the Liwan of the Mosque of Sultan
Hassan.

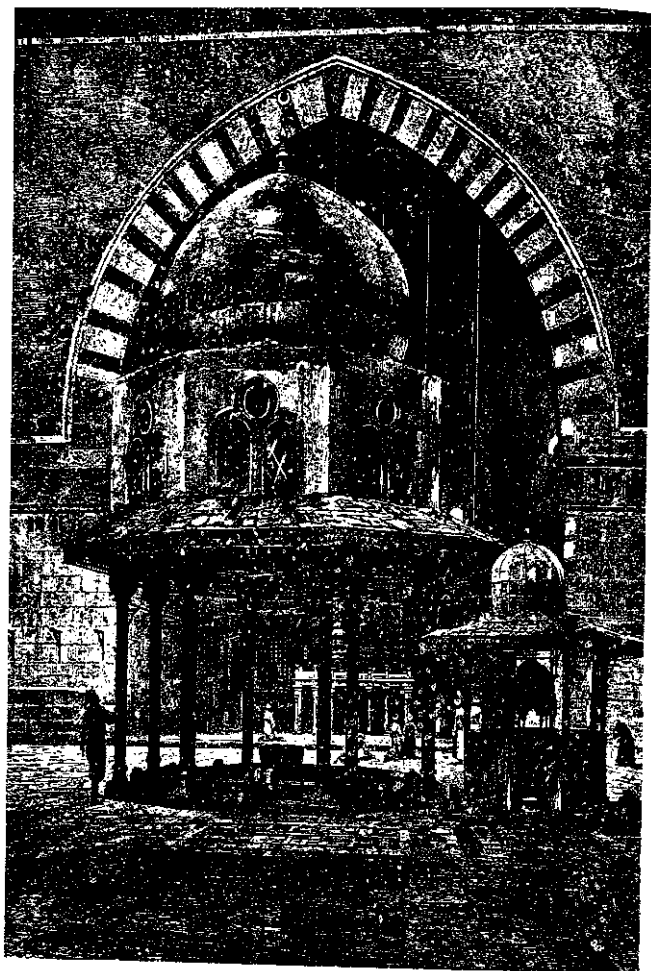


FIG. 45.

Interior of the Mosque of Sultan Hassan. The domed structure is the fountain for ablutions.

the chamber is inlaid with coloured marble and its upper part has a frieze of calligraphic inscriptions in bold letters. Once this mosque had a beautiful collection of artistic bronze chandeliers, bronze and silver stands, carved-wood lecterns (rehels) and enamelled glass lamps. Some of these artistic treasures can be seen in the Arab Museum at Cairo.

● Besides the Mosque of Sultan Hassan other important buildings that were raised during the remaining Turkish Mamluke period are the Mosque and Madressa of Amir Sheikhu built in 1349 A.D. and 1355 A.D. respectively, the Madressa and Mausoleum of the Amir Sargitmish built in 1356 A.D., the Madressa and Mausoleum of Sultan Shaban built in 1368 A.D. and the Madressa of the Amir Algai al-Yusufi built in 1373 A.D. This madressa-mosque presents a type of building which under the Circassian Mamlukes was to become very popular in the following century. In addition to

the mosque, madressa and the living quarters of the students, this new type of mosque had a "sabil" or drinking-fountain, a "kuttab" or an elementary school and a library attached to it. The architecture of this period shows that the art of building had progressed a great deal since the time of the Fatimids and Salah ud-Din Ayyubi. Unlike the buildings of these two periods the monuments of the Mamlukes give equal importance to both the interior and the façade of the edifice and hence their external walls instead of being left bare were decorated with calligraphic inscriptions interlaced with foliage or arabesques, parapets and beautiful stalactites.

CIRCASSIAN MAMLUKES. 1382-1517 A.D.

● Circassian or "Burjite Mamlukes" derived their name from their quarters in the Citadel or "Burj" of Cairo whose defence was their main occupation. This dynasty of Mamlukes differs from its predecessors the "Bahrite Mamlukes" in the absence of any hereditary succession. Of the twenty-three Sultans of this dynasty, only six are of any importance to us. During their reigns, architecture and other fine arts progressed steadily gaining in grace and splendour and thus Cairo continued to be the most important and beautiful city of the Muslim World. Lane-Poole is perhaps not far wrong when he says that Cairo and not Baghdad was the scene of the "Arabian Nights." The wonderful tomb-mosques that rise from the sands, the splendid buildings with their charming domes and exquisite decorations, the fascinating vaulted bazars and the social customs of the people, make one

believe that this famous series of tales no doubt had their origin in Egypt or Persia and not in India. Though the tomb-mosque was the special feature of later Mamluke Architecture, madressas, libraries, palaces, khans, baths and public fountains were also built with great care and fine taste.

THE MOSQUE OF SULTAN BARQUQ 1382-99 A.D.

●The first of the Circasian Sultans was Barquq. He gained the throne by deposing the child Sultan Haji. Though he ruled wisely yet his reign was interrupted by civil wars, revolutions and foreign invasions. In spite of his cruelty and bad temperament he took a great interest in architecture and raised many beautiful and useful monuments of which the great madressa-mosque completed by him in 1386 A.D. is the most important. It is situated in Suq An-Nahassin close to the Mosque of Qalawun. It is cruciform in plan and has a flat timber roof over the

main liwan. This substitution of a flat roof for the vault shows that a change was taking place in the function and consequently in the plan of madressas. As time went on the need for intensive educational propaganda against the Shiites became less and hence the madressa lost its character as a place primarily of education and ultimately became a place of prayer. Since it is customary for the "nimazis" or the worshippers to arrange themselves in long rows, the liwan of the madressa was given greater width than depth. The entrance to the Mosque of Barquq is very striking. A double flight of marble steps leads to a handsome domed porch of black and white marble with beautiful doors of wrought bronze and silver. From a small ante-chamber a long and vaulted passage leads into the sahn of the mosque which has in the middle a fountain for ablutions of Turkish design resembling a "sabil" or a public fountain. The vaulted passage is paved with marble mosaic of a bolder but harmonious design. The main liwan

contains a prayer-niche and a pulpit and has a richly decorated ceiling supported on four large columns of dark red granite. The main liwan and the liwanats are reached by a high step-up from the sahn. The great horse-shoe arch of the main liwan springs from a point comparatively near the floor level and is built from red and white stones used alternately. The "dikkah" or the choir gallery made of white marble is a later addition. The entire mosque has been restored by Herz Bey with great care and labour. The minaret of the mosque is more slender than that of Sultan Hassan and has served as a model for several later buildings. Beside the minaret stands a dome of not great beauty, underneath which lies the tomb of Barquq's daughter. This mausoleum is reached by three doors, one of which is through the main liwan and like the rest of the building is richly decorated with stained glass, marble carving and gilding. Other mosques of the period of Barquq are the Mosques at Khan Yunus

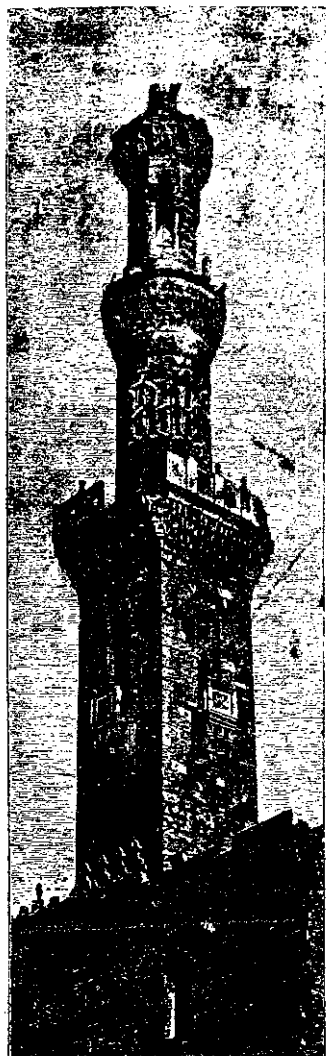


FIG. 46.
The Minaret of the Mosque of Sa

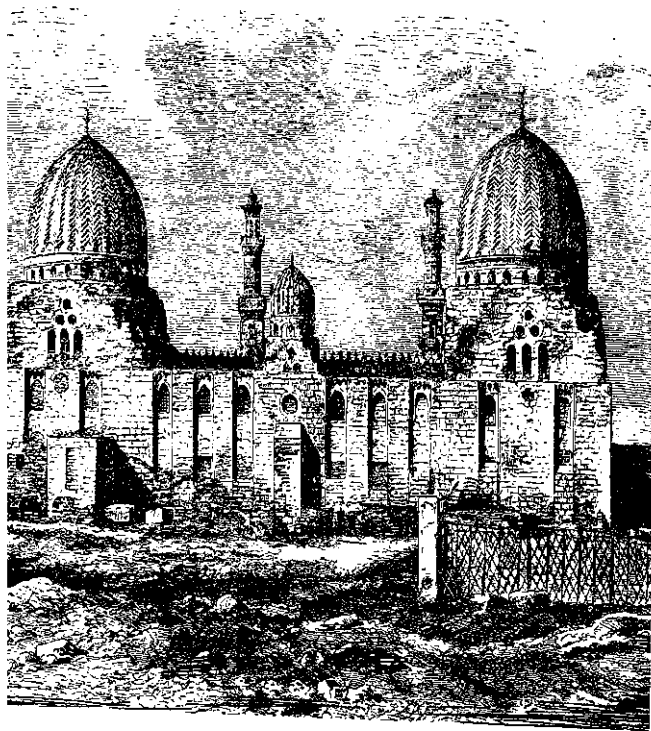


FIG. 47.

The Mausoleum of Sultan Barquq and Faraj which lies at the north-east end of the Qarafah Cemetery, is one of the important monuments of Muslim Art.

in a village near Gaza, the Zawiya of Sheikh Mohammad al-Bozzazi 1388 A.D. at Aleppo and the Qubbat as-Sadyn 1399 A.D. at Baalbek.

**THE MAUSOLEUM OF SULTAN
BARQUQ AND FARAJ
1399-1412 A.D.**

●After the death of Sultan Barquq in 1399 A.D., the eldest of his three sons, An-Nasir Faraj, a boy of thirteen, came to the throne. He was from a Greek mother and is known to have been notoriously debauched, a hard drinker and a coward in battle. The people of Egypt groaned under his taxes and war levies. His defeat in 1400 A.D. at the hand of Timur, his father's old enemy, bred sedition among the Amirs and two of them declared their independence. It is because of the ravages of Timur that there is a scarcity of Saracenic buildings in Damascus and Syria. Though Faraj retained his throne for a while through the help of

Amir Yeshbek, he was executed in 1412 A.D. by the order of Khalifa Musta'in and his body was cast upon a dung heap.

● In spite of all his faults Faraj was a patron of architecture, and his great mausoleum in the north-east end of the Qarafah Cemetery is one of the important monuments of Muslim Art. It is often called the Tombs of the Khalifas and includes a khanqa or monastery, a fountain and a primary school besides the usual features of a tomb-mosque. When seen from outside it appears rather symmetrical with two minarets one of which has lost its upper storey. On the wall behind the minarets, each side of the eastern liwan, stand two large stone cupolas decorated with fish-bone patterns in a most exquisite manner and they are considered to be the first examples in Cairo of stone used for a dome instead of brick and plaster. Underneath these domes are two spacious funeral chambers containing the tombs of Sultan Barquq and his son Faraj the builder of

the mausoleum. Next to the original main entrance is placed a "sabil" or fountain chamber over which is built a "kuttab" or primary school. Outside this entrance are found the ruins of an arcaded hall which connected the main building with the domed tomb of Sharaf ud-Din Anas the father of Sultan Barquq. The mausoleum in spite of its delapidated condition presents an impressive sight. In plan it resembles the earlier Mosques of Ibn Tulun or Al-Hakim. Its large sahn is surrounded by arcades with pointed-stilted-arches supported on slender octagonal piers. In the centre of the sahn is a fountain for ablutions. The roof of the mosque is made of small hemi-spherical brick vaults resembling inverted soup plates. Other buildings of the time of Faraj are his madressa outside the Bab-Zuwaylah built about 1409 A.D., the Mosque of Amir Jamal ud-Din Yusuf al-Ustadar 1408 A.D. and the Mosque of Al-Ayni 1411 A.D.

THE MOSQUE OF SHEIKH AL-MUAYYAD 1412-20 A.D.

●After the execution of Faraj at Damascus, Khalifa Musta'in was put on the throne as a stop-gap while Sheikh and Nawruz fought for the throne. Within six months Sheikh took the throne with the title of Sultan Al-Malik al-Mu'ayyad. Besides being a learned man of many accomplishments, he was a devout Muslim, fine musician, an orator and a man of simple habits and tastes. His charitable spirit expressed itself in building hospitals and various public institutions out of which the mosque which still bears his name is most important. This "votive" building was raised upon the very spot where once stood the prison in which Sheikh had been confined for a while. The mosque stands adjoining the Bab az-Zuwaylah. It is often called Bab al-Mitwelly. This college-mosque like many others is a dependency of Al-Azhar and is attended by a large number of students.

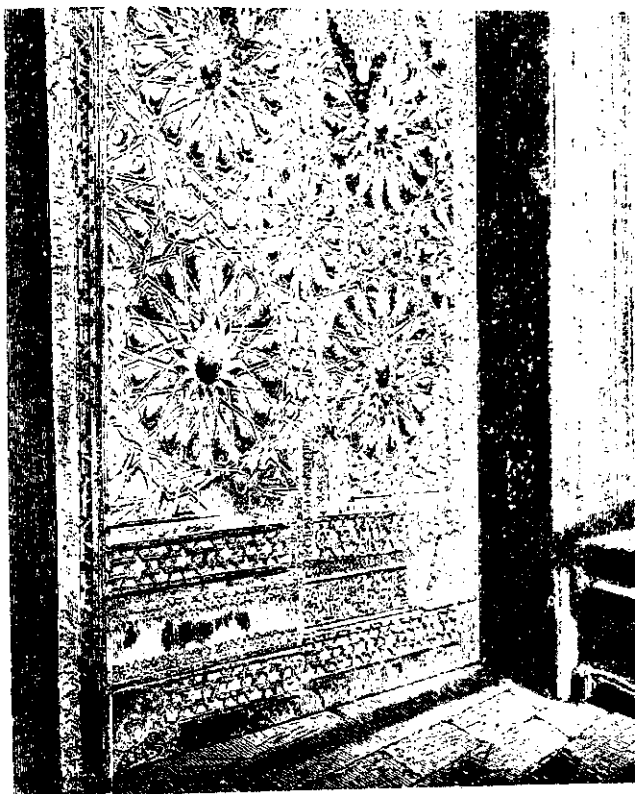


FIG. 48.

The Door of the Mosque of Al-Muayyad. The beautiful bronze doors were procured from the Mosque of Sultan Hassan.

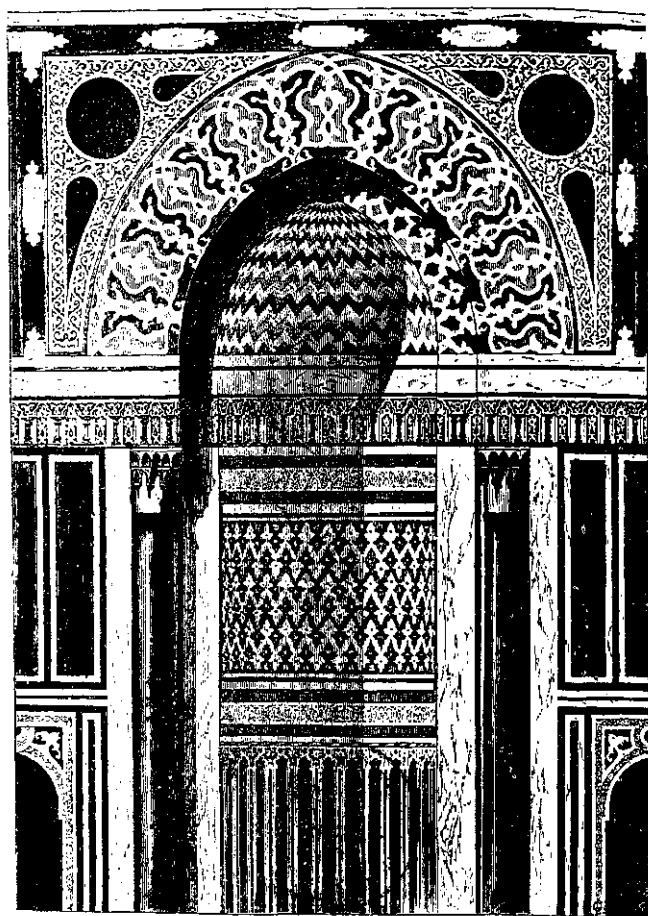


FIG. 49.

The Mihrab of the Mosque of Al-Muayyad.

The beautiful bronze doors of the richly decorated portal are twenty feet high and were procured from the Mosque of Sultan Hassan at the cost of 500 gold dinars. This main door is reached by an imposing marble stair-case. Its two beautiful slender lofty and elegant minarets stand not on the mosque itself but on the adjoining gateway. The façade which is made of alternate courses of red and white stone is decorated with recesses between piers with rows of stalactites above them and a foliated parapet running the entire length of the façade. It is said that the Sultan pulled down a part of the fortifications to make room for his magnificent mosque. The upper portion of these two minarets have been rebuilt.

●The original portion of the mosque is the principal liwan that lies towards Sharia Shukriyyah, for the rest was considerably restored under the supervision of the Commission for the Preservation of Arab Monuments. The antique

marble columns and their beautiful capitals are supposed to have been taken from various Christian churches. On top of these capitals rest wooden tie-beams for strength. The height in the liwan is achieved by building pointed-stilted-arches on top of the columns. The entire building with its gorgeous decorations is an example of a very high level of craftsmanship. The beautiful mihrab lined with marble mosaic, the marble dado or the lower part of the liwan, the carved and coloured woodwork of the ceiling are all things of great beauty. The large sahn with palm trees planted around the fountain is another attractive feature of the mosque. Of the three liwans nothing remains but the outer walls. On the right side of the main entrance lies the Sultan's tomb in a mausoleum which is crowned with a superb dome resting upon a circular row of small windows. The tomb itself is made of white marble decorated with a fine kufic inscription. Another monument of Sultan Al-Moyyad is a maristan which was fashioned after the hospital

of Sultan Qalawun. Its ruins are hidden and filled with the hovels of the poor people. In front of its main façade was built the Turkish Mosque of Ibrahim as-Sukkary in the 18th century. The main door of this hospital is of immense size and decorated in a bold manner.

AL-ASHRAF BARS-BEY
1422-38 A. D.

●After the death of Sheikh al-Moayyad in 1421 A.D. his son Ahmad was placed on the throne under the regency of Tartar. The reign of Ahmad was a brief one, but briefer still was that of his regent, Tartar. He was followed by a boy Mohammed under the regency of Bars-Bey who as usual snatched away the throne from the rightful owner within a few months, and taking the title of Al-Ashraf ruled successfully for sixteen years. He extended his domain considerably, conquered Cyprus, and controlled the Indian trade which brought him more

wealth than any of his predecessors. In spite of this outward tranquillity and prosperity the people of Egypt suffered, for his monopolies enriched only Mamlukes and so he died unregretted. The monuments erected in his period though charming are smaller in size than those built previously, and the Mosque of Jawhar al-Lala is the best example.

THE MOSQUE OF JAWHAR AL-LALA 1430 A. D.

●The most important of the mosques built by Bars-Bey is that of Jawhar al-Lala at Al-Khanqa. It is situated near the Citadel at Cairo. In this mosque extra width has been given to the main liwan by wide recesses in the side walls thus making it wider than its depth and the sahn. The liwans on either side of the sahn are reduced in size and importance so much that they appear only as recesses spanned by arches. The change from the barrel-vault to the flat

roof for the liwan, is due to the fact that although the qibla-wall could be made heavy enough, the arches could not. Another important change in this mosque is the use of dressed stone in place of plaster which was previously used above the marble "wazara" or dado of the liwan. Along with it the internal inscriptions and other decorations which previously were cut in plaster are carved in stone in this mosque. The only places where plaster is used are the fretted windows filled with coloured glass. This mosque was extensively restored by the Comité in 1895-98 A. D. Other buildings of this period are the Mosque Al-Muini at Demietta and the Mosque of As-Saffahiyyah at Aleppo.

● After the death of Bars-Bey, his fourteen year old son Al-Aziz Yusuf was placed on the throne under the regency of Nizam al-Mulk Jaqmak who ultimately took the throne for himself. Jaqmak the slave of Barquq was a man of exemplary character and simple habits

and rose to this power through his personal merits. He loved the company of learned men and observed the laws of the Quran scrupulously, with the result that his government was mild and the people were contented. He ruled for fifteen years 1438-53 A.D. and died at the age of eighty, leaving behind a child from a Greek wife. The only interesting mosque of his reign in Cairo is that of Qazi Yahya Zayn ud-Din in the Muski Quarters. Jaqmak's son Al-Mansur Usman who was proclaimed Sultan during his father's last illness was deposed within a month and a half by Al-Ashraf Inal, an easy-going illiterate old man, who could hardly control the Mamlukes. He has left us one magnificent memorial in his great mausoleum built in 1450-56 A.D. in the Eastern Cemetery, composed of a khanqa and a madressa. Unluckily it is in a ruinous condition. The other important relic of his reign is the Pulpit of the Qazi Burhan ud-Din in the Haram Ash-Sharif at Jerusalem built in 1456

A.D. which is used for open air sermons. Inal was followed by his son Al-Muayyad Ahmad who was not able to control the chaos which had ensued during the reign of his father, so he abdicated in favour of his governor the Greek Az-Zahir Khushkadam whose rule is conspicuous for corruption. Khushkadam's son Az-Zahir Yel-Bey, known as Al-Majnun or the lunatic, was dethroned by a faction of Mamlukes who placed Az-Zahir Timurbugha, a highly cultured man and philosopher upon the throne. On ascending the throne, Timurbugha released the ex-Sultan Ahmad and the imprisoned Amirs of various factions. This act of magnanimity and kindness so annoyed the Mamlukes that they locked up the learned Sultan and put in his place Kher Bek with the title of Al-Adil. Kher Bek could not hold the throne for long for he was ousted by Qait-Bey. Qait-Bey released the learned Timurbugha, treated him with utmost consideration and allowed him to live in freedom and ease at Damietta.

AL-MALIK AL-ASHRAF ABUL NASR
QAIT-BEY 1468-96 A.D.

●With the beginning of the reign of Qait-Bey commences the most splendid epoch in the history of Muslim Architecture in Egypt, for it presents in a culminated form the architecture of the entire Mamluke period. Sultan Qait-Bey reigned for nearly twenty-nine years, a period which is longer than any of his predecessors since Sultan Qalawun. Like most of the Circassian Sultans Qait-Bey worked his way up from a slave to the most successful war-like monarch of his line. He combined along with judgment, insight, decision and experience, colossal energy, courage and immense physical strength. With all this he is undoubtedly the greatest of all the Mediæval building-rulers of Egypt and Syria. He taxed the rich people with remorseless severity and used this income for those monuments and public works in Egypt, Syria and Arabia for which his reign has become so eminent.



FIG. 50.

The Minaret of the Mosque
Qait-Bay. This tall, slender
and graceful minaret is
most beautiful in Egypt.

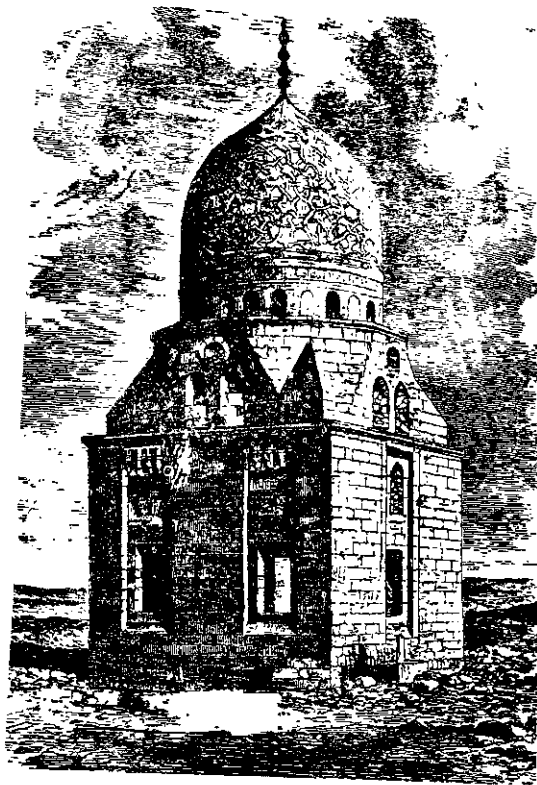


FIG. 51.

A Small Mausoleum from the Qarafah Cemetry, showing one of the numerous types of beautiful cupolas.

Besides building new roads, "wakalas" or caravanserais, public fountains, mosques and hospitals, he diligently restored and repaired the crumbling monuments of his predecessors. When one sees his gorgeous buildings, one is apt to ignore the barbarous and inhuman aspect of he who realised these wonderful creations of matchless beauty.

● Since the middle of the 15th century until to-day many styles of architecture have come and gone, but the buildings which have become known by the name of Qait-Bey have stood the test of time, for they embody those fundamental principles of beauty that are inherent in every fine style of architecture. By using various geometric forms such as rectangles, circles and triangles, the architects of Qait-Bey have endowed these mathematical signs with a mystical significance. The æsthetic and intellectual appeal in this style of building is the outcome of the fitness of forms and the

architectural motives used in its composition. By composition I mean the assembling of parts and elements. When the component parts that are used in the formation of a structure are so arranged as to make a clear and appropriate statement the creation is bound to be beautiful both æsthetically and otherwise.

●The monuments of the Circassian Burjites differ from the Bahrites not only in their exterior and interior aspects but also in other architectural details. Their minarets not only soar higher than those of their predecessors but are also more graceful and slender. They are composed of square octagonal and circular shafts crowned by baldaquin-shaped lanterns. The terraces which separate their various stages are made very narrow to render them slender. The dome is another architectural form which developed special features of decoration during this period. The Qarafah Cemetry in Cairo, often called the "Tombs of the

Khalifs " though they are the mausoleums of various Amirs, is the best place for the study of dome designs. Here the majority of the cupolas are stilted and slightly pointed resembling the helmets of the Saracens. Their exteriors are either left plain or decorated with chevrons (zigzags) arabesques or flutes. Fluting usually denotes a brick-dome covered with plaster. The use of geometrical arabesques for the surface decoration of the dome forms the next step in its ornamentation. In the time of Qait-Bey conventional floral forms were combined with arabesques and later on the straight lined arabesque was completely discarded and its place was taken by a foliated pattern carved all over the dome. The drum of the dome which was sometimes octagonal and sometimes dodecagonal or circular, had carved calligraphic inscriptions running around it.

THE TOMB-MOSQUE-MADRESSA OF QAIT-BEY 1472-74 A.D.

● The most important and the most beautiful of the monuments of Qait-Bey is his tomb-mosque or madressa which was built in 1472-74 A.D. It is situated in the Eastern Cemetery and is the favourite of writers on the subject of Muslim Architecture. Both externally and internally, every part of this small but exquisite edifice is most charming and graceful. According to Fergusson this perfect model of elegance is perhaps unrivalled by anything in Egypt and far surpasses the Alhambra or the other western buildings of its age. It is also remarkable for its skilful planning, harmonious grouping of its parts, its slender and graceful minaret, elaborate floral geometric decoration of its dome and the magnificence of its general ornamentation. A wide flight of steps leads to the porched entrance covered by a trefoil arch with stalactites in the lower



FIG. 52.
The Exterior of the Mosque of Qait-Bey.

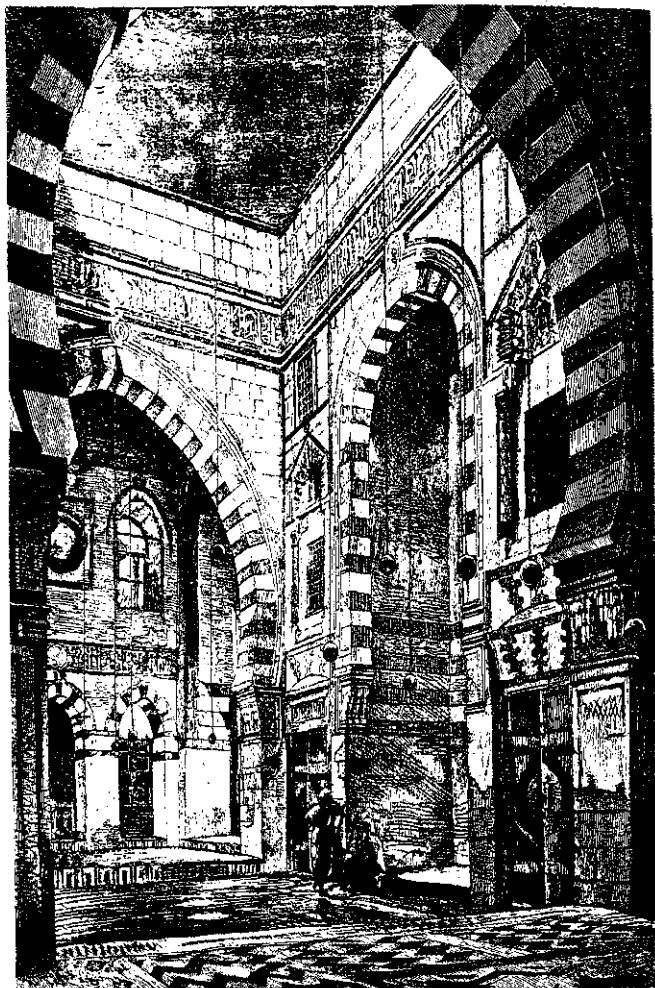


FIG. 53.
The Interior of the Mosque of Qait-Bey.

part. Around the arch is a moulding punctured at intervals by small loops and forming a large loop at the head of the arch. From here it runs horizontally right and left and then vertically downwards to the foot of the arch. The spandrels of the arch are decorated with arabesques. Above its apex rests a panel with fine carved inscriptions which is also enclosed in a punctured moulding. The façade of the mosque which is made of red and white courses of stone is divided into piers and recesses. Over the recesses are placed stalactites and within them are set windows with voussoirs of joggled-joints. The walls are crowned with ornamental battlements called "sharafat." On the left of the entrance is a "sabil" above which is a "kuttab" or a primary school. On its right rises the graceful minaret adorned with chevrons and garlands, becoming more and more slender as it rises high above the cupola. This solitary minaret and the dome are perfect examples of their kind because of their

purity and simplicity of contour. The surface ornamentation on the dome is in low relief and hence the brilliant sun does not create strong lights and shadows that could in any way injure its silhouette.

● Within the porch lies a vestibule from which one turns at right angles through a short passage to the sahn paved with marble of various colours arranged in geometrical patterns. Its central part is made of circular discs cut from old columns. The sahn was originally covered but is now open to the sky. Besides the entrance door the sahn has two other doors covered with bronze and decorated with geometrical patterns forming panels. A passage from the sahn leads to the mausoleum, a square chamber crowned by a magnificent stone dome. The square substructure of the chamber is reduced to an octagon by corbelled stone courses, the ends of which are decorated with stalactites. Except for the main liwan, all the other liwanat have decorated

wooden ceilings. The main liwan is entered through a bold horse-shoe arch of red and white stone round which runs a "mima" moulding forming a loop at its apex and then passing horizontally round the wall of the sahn. "Mima" is the name given to a moulding punctured by little loops. This type of decoration first appeared in 1441 A.D. on the base of the minaret of the Mosque of Qaraqoja al-Hassany. The top loop at the apex of the arch was first found in plaster over the mihrab arch of the Mosque of al-Juyushi and is perhaps of Armenian or Anatolian origin. Above this "mima" moulding runs a band of inscription carved in stone gilded and coloured. The dado of the qibla wall and the mihrab are decorated with panels of marble and mosaics. Above the mihrab and all around the walls runs a fine inscription cut in stone and on each side of it there are two doors above which are placed large pointed-headed fretted windows filled with coloured glass. Between them is placed a decorated roundel for light and

ventilation. The most important feature of the liwan is the wooden pulpit which is a most exquisite specimen of carved and highly coloured wood work.

● When Qait-Bey accepted the throne he was already a grey-haired man of fifty-five, yet his passion for building was so intense that during all the six years of peace he engaged himself in erecting those beautiful monuments which are eloquent of his refined taste and energetic enterprize. The religious monuments and other pious buildings which he erected are so numerous that it is not possible to give a detailed account of them. Among his public works the most important are his "wakalas" or khans which are found both in Syria and Cairo. His most famous rest-house is in Sarugiya built in 1477 A.D. He also built several "sabils" for the poor in Cairo and Jerusalem. For animals he made drinking troughs. One which stands near the Mosque Al-Azhar is in a good state of preservation and is

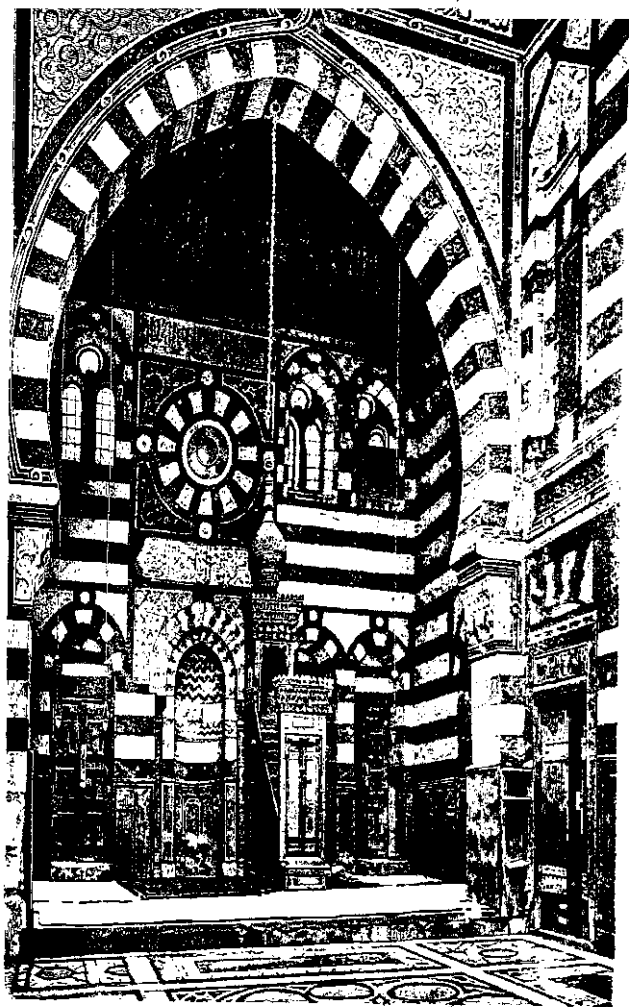


Fig. 54.
Interior of the mosque of Ezbek Al-Yusufy

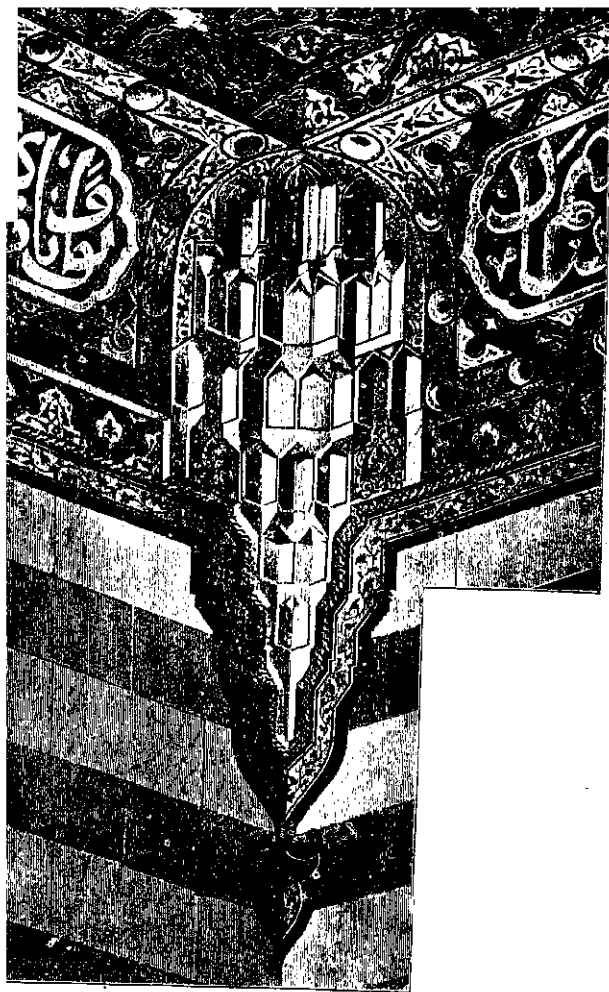


Fig. 55.

A squinch from the mosque of Ezbek Al-Uusufy.

adorned with very charming decorations. Besides these original works his work of restoration and repair includes the Mosque of Amr, Jami' al-Azhar and the Mausoleum of Imam Shafa'i. The Sultan's taste for building beautiful monuments was emulated by the rich Amirs of his court who wished to rise in his estimation. Among them the most important was the Amir Ezbek, General in Chief of Qait-Bey, whose name is also mentioned as Director of Works, for his taste for building coincided with that of the Sultan. The mosque which he built was completely demolished in 1869 A.D. and some of its material was used by M. de St. Maurice for building his lovely house now used as the French Agency.

●The architecture of this period which is known by the name of Qait-Bey is so numerous and the slight variations are so insignificant, that I feel the description of the Mosque-Madressa of Qait-Bey, which I have

already given, is sufficient to give a comprehensive idea of this style of architecture. The last years of the reign of Qait-Bey are rendered inglorious and most tragic through heavy taxation, discontentment and plague. It was estimated that twelve thousand people died of the epidemic in Cairo in a single day. It killed a third of the Mamlukes and took away from the Sultan his only wife and a daughter. The plague was followed by a famine and cattle disease. At this critical moment the intrigues and jealousies of the Mamlukes ripened into a riot which was successfully quelled by the aged Sultan. Worn down by illness and worry Qait-Bey abdicated in favour of his son Mohammed, and died the day after. Although the rest of the Sultans of this dynasty endeavoured to carry on the architectural tradition of Qait-Bey, yet one can say that with him ended the most glorious epoch in the history of Muslim Architecture in Egypt.

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GLOSSARY

- AGATE.—A quartz with colours in stripes and clouds.
AISLE.—A passageway formed with pillars.
ALABASTER.—A white marble-like soft stone.
ALOE.—Fragrant wood found in India.
AMBULATORY.—A covered walking passage.
AMIR.—A nobleman, governor or commander.
ANTE-CHAMBER.—A small room leading to the principal chamber.
APEX.—Point, tip or summit.
APSE.—A semi-circular recess covered with a half-dome.
ARABESQUE.—Arab style of decoration.
ARCADE.—A row of arches supported on piers.
AZAN.—The Muslim Call to Prayer.
- BALCONY.—A platform or gallery built out from the wall of a building and enclosed by a railing.
BALDAQUIN.—Shaped in the form of a canopy.
BASE.—The lower portion of a column or any structure.
BASTION.—Projecting point of the rampart.
BATTLEMENT.—A parapet with open spaces at intervals above the roof.
BELVEDERE.—The part of the building left unroofed.
BURJ.—A Citadel.
BUTTRESS-TOWERS.—Towers used to strengthen the wall.
- CAPITAL.—The upper portion of a column.
CARTOUCHE.—An ornamented tablet.
CENOTAPH.—An empty tomb erected in memory of the deceased.
CHEVRON.—Zigzag or V shaped pattern.

- CINQUEFOIL.**—An ornament having five cusps.
- CISTERN.**—A reservoir for storing water.
- CITADEL.**—A fortress.
- COFFERED CEILING.**—A ceiling made of sunken panels.
- COLONNADE.**—A row or series of columns.
- COLUMN.**—A vertical support.
- CORBELLING.**—To support by means of projections from the side of a wall.
- CORINTHIAN.**—The third order of Greek Architecture, in which the capital is bell shaped and very decorative.
- CORNICE.**—A horizontal moulded projection forming the top part of a wall.
- CRUCIFORM.**—Cross-shaped.
- CUPOLA.**—A spherical roof rising like an inverted cup over a circular, square or multiangular base.
- CUSPS.**—The meeting point of two arcs.
- DADO.**—The lower part of the wall when differently decorated from the rest of it.
- DERVISH.**—A Muslim monk.
- DIKKAH.**—A raised structure in the liwan of the mosque used for certain parts of the service.
- DOSSERETS.**—Wooden beams used between the arches for support.
- DOUBLE-DOME.**—A dome in which the inner and outer parts are separated to form an air gap.
- DRUM.**—Portion upon which the dome rests.
- ENGAGED COLUMNS.**—Attached or built into the wall.
- FACADE.**—The front view or elevation of the building.
- FLUTE.**—A vertical channel.
- FREIZE.**—An ornamental band round the wall.
- HAJ.**—The annual pilgrimage of the Muslims to Mecca.
- HAJAR UL-ASWAD.**—The Holy Black Stone at Kaaba.
- HAMMAM.**—A public bath.
- HANAFI (SUNNI)**—A sect of the Muslims.
- HARAM.**—A sacred enclosure (e.g. Haram ash-Sharif).

HIJRA.—The migration of Prophet Mohammed from Mecca to Medina 622 A.D. from which date the Islamic Calendar is reckoned.

IMPOSTS.—The moulding upon which the arch rests.

JAMI'.—The friday congregational mosque.

JOGGLE-JOINT—A joint in which one part is fitted to hold the projection of the other.

KEystone.—The central stone of an arch.

KHALIFA.—The religio-political head of the Muslims.

KHAN.—Caravanserai. A lodging place for travellers.

KHANQAH.—Convent where dervishes live.

KHUTBA.—The Friday Sermon.

KIOSK.—An open pavilion.

KUFIC SCRIPT.—The angular type of calligraphy that originated at Kufa.

KUTTAB.—A primary school.

LANTERN.—An open structure in the roof or dome to give light and ventilation.

LATTICE.—Network.

LECTERN.—A small stand on which the book is placed while reading.

LINTELS.—The horizontal piece of wood or stone over the top of a door or window.

LIWAN (*pl.* Liwanat) (Iwan).—The sanctuary.

LOZENGES.—A diamond-shaped figure of four equal sides.

MADRESSA.—A collegiate-mosque.

MAHMIL.—The beautifully embroidered velvet covering of the Holy Kaaba which is changed every year.

MAMLUKES.—Slaves who became rulers of Egypt.

MARISTAN.—A hospital.

MAQSURA.—A portion of the principal liwan of a mosque enclosed with screens of lattice work.

MAUSOLEUM.—A magnificent tomb or monument.

MAXTILINEAR ARCH.—A squat pointed arch.

MEDALLION.—A decorative tablet or panel bearing a figure or design painted, sculptured or engraved.

MERLONS.—The solid interval between two openings in the battlemented parapet.

MIHRAB.—A niche indicating the Qiblah in the wall of the main liwan.

MIMBAR.—The pulpit in a mosque.

MI'RAJ.—The nocturnal visit of the Holy Prophet Mohammed to heaven.

MOSAIC.—A design made by inlaying very small pieces of glass or stone of various colours.

NASKHI (Naskh).—A cursive form of the Arabic script.

NIMAZ and NIMAZI.—The prayer and the worshipper.

PARAPET.—The upper portion of the wall above the roof, sometimes battlemented.

PENDENTIVES.—One of the several triangular sections of vaulting supporting a dome.

PIERS.—A structure of masonry, one of the supports of an arch, not a column.

PLAN.—The representation of a building showing the general distribution of its parts in horizontal section.

POLYGONAL.—Many-sided.

PORTAL.—A stately and imposing entrance.

PORTICO.—Space enclosed by columns supporting a roof.

QIBLA.—The direction of Mecca.

QUB.—A dome or a domed tomb.

RACCORD.—A system of corbelling in the round.

RIB.—Intersection of the vaulted surface.

RIWAKS.—Porticos.

ROTUNDA.—The round part of the dome.

ROUNDEL.—Round form of decoration.

RUBBLE-STONE.—Rough stone.

SABIL.—Public fountain.

SAHN.—Courtyard of a mosque.

SANCTUARY.—A consecrated portion.

SHAFT.—The portion of the column between the capital and the base.

SPANDREL.—A triangular space between the curves of the two arches.

SQUINCH.—A pendentive made of small projecting arches.

STALACTITES.—A vaulted surface decorated by a series of overhanging projections.

STILTED ARCH.—An arch which springs at a point higher than the impost moulding.

STILTED DOME.—In which the drum is increased giving the dome greater height.

STUCCO DECORATION.—Decoration in plaster.

SUQ.—Street.

TIE-BEAM.—Wooden beams used to strengthen arcades.

TORUS MOULDING.—A convex semi-circular moulding.

TREFOIL ARCH.—An arch with three curves.

VAULT.—An arched roof.

VESTIBULE.—Ante-chamber.

VOUSSOIR.—Wedge-shaped section of an arch vault.

VOTIVE BUILDING.—Raised for a fulfilment of a vow.

WAKALA.—A khan or caravanserai.

WAKF.—An endowment used for charitable purposes.

ZAWIYAH.—A small mosque, tomb of a saint.

ZIYADA.—An open space between the walls of a mosque and an outer enclosing wall.